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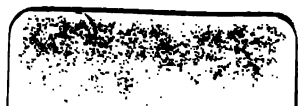
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THE HOLBORN SERIES  
OF  
READING BOOKS.

BY REV. C. S. DAWE, B.A.,  
*Normal Master, St. Mark's College, Chelsea.*

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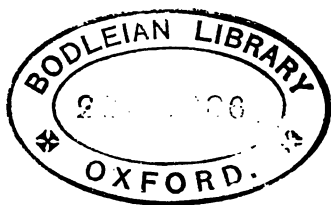
INSTRUCTIVE  
READER,

No. 5.

*(Standards V and VI).*

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## P R E F A C E.

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THIS book forms the last of the series, and though specially designed for scholars in the Fifth and Sixth Standards of Elementary Schools, will be found useful in schools generally as an Introduction to English Literature.

The lessons are of a varied character, to afford exercises in reading in every kind of style, and to aid the readers in acquiring the command of an extensive vocabulary. The explanatory notes will direct the attention of young teachers to the difficulties most likely to occur to their pupils, and assist them in giving the required explanation.

No attempt has been made to supply a complete course of lessons on any "specific subject," as pupils at this stage should be provided with special text-books on the subjects selected for their special study. It is hoped, however, that a fair proportion of lessons is devoted to scientific subjects, and that they will be found to impart solid information

1

to stimulate curiosity, and to awaken inquiry respecting the nature of the universe and its relation to man. The notices of the authors, at the head of some of the lessons, are calculated to give the pupils some acquaintance with the more eminent of our English writers.

Pupils in public elementary schools are now required in the Upper Standards to read with intelligence and expression, to insure a "pass" at the Government examinations. It is believed that this book will prove conducive to this important end, as the lessons are sufficiently clear and attractive in style to be read with pleasure, and, by the aid of the notes, with a due appreciation of the author's meaning.

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Two or three lessons are taken from Dawe's "Landmarks of General History," with the kind permission of Messrs. Collins and Sons, and two others from Dawe and Lawson's "History of England," published in the "Holborn Series."

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## THE HOLBORN SERIES.

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### INSTRUCTIVE READER, No. 5.

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#### THE TRUANT.

DAFFYDOWNDILLY, so called because in his nature he resembled a flower, and loved to do only what was pleasant and agreeable, took no delight in labour of any kind. But while Daffydowndilly was yet a little boy, his mother sent him away from his pleasant home, and put him under the care of a very strict schoolmaster, who went by the name of Mr. Toil. Those who knew him best affirmed that this Mr. Toil was a very worthy character ; and that he had done more good, both to children and grown people, than anybody else in the world. Certainly he had lived long enough to do a great deal of good ; for, there is reason to believe, he had dwelt upon earth ever since Adam was driven from the garden of Eden.

Nevertheless, Mr. Toil had a severe and ugly countenance, especially for such little boys or big men as were inclined to be idle ; his voice, too, was harsh, and all his ways and customs seemed very disagreeable to our friend Daffy ; for unless a lad chose to attend quietly and constantly to his book, he had no chance of enjoying a quiet moment in the schoolroom of Mr. Toil.

"I can't bear it any longer," said Daffy to himself, when he had been at school about a week ; "I'll run away, and try to find my dear mother ; and, at any rate, I shall never find anybody half so disagreeable as this old Mr. Toil."

So, the very next morning, off started poor Daffy, and began his rambles about the world, with only some bread and cheese for his breakfast, and very little pocket-money to pay his expenses. But he had gone only a short distance when he overtook a man of grave and sedate appearance, who was trudging at a moderate pace along the road.

"Good morning, my fine lad," said the stranger ; and his voice seemed hard and severe, but yet had a sort of kindness in it : "whence do you come so early, and whither are you going ?"

Little Daffy was a boy of very ingenuous disposition, and had never been known to tell a lie in all his life. Nor did he tell one now. He hesitated a moment or two, but finally confessed that he had run away from school, on account of his great dislike to Mr. Toil, and that he was resolved to find some place in the world where he should never see or hear of the old schoolmaster again.

"Oh, very well, my little friend," answered the stranger ; "then we will go together, for I should be glad to find such a place."

They had not gone far when the road passed by a field where some haymakers were at work. Daffy was delighted with the sweet smell of the new-mown grass, and thought how much pleasanter it must be to make hay in the sunshine, under the blue sky, and with the birds singing sweetly in the neighbouring trees and bushes, than to be shut up in a dismal schoolroom, learning lessons all day long, and continually scolded by old Mr. Toil. But in the midst of these reflections, while he was stopping to peep over the stone wall, he started back, and caught hold of his companion's hand.

"Quick, quick!" cried he; "let us run away, or he will catch us!"

"Who will catch us?" asked the stranger.

"Mr. Toil, the old schoolmaster! Don't you see him amongst the haymakers?"

And Daffy pointed to an elderly man, who seemed to be the owner of the field, and the employer of the men at work there. He had stripped off his coat and waistcoat, and was busily at work in his shirt-sleeves. Now, strange to say, the figure and features of this old farmer were precisely the same as those of old Mr. Toil, who at that very moment must have been just entering his schoolroom.

"Don't be afraid," said the stranger; "this is not Mr. Toil, the schoolmaster, but a brother of his, who was bred a farmer; and people say he is the more disagreeable man of the two. However, he won't trouble you, unless you become a labourer on the farm.

"I am very glad to hear it," quoth Daffydowndilly; "but, if you please, sir, I should like to get out of his way as soon as possible."

They then went on a little farther, and soon heard the sound of a drum and fife. Daffy pricked up his ears at this, and besought his companion to hurry forward that they might not miss seeing the soldiers. Accordingly, they made what haste they could, and soon met a company of soldiers, gaily dressed, with beautiful feathers in their caps and bright muskets in their hands. In front marched the band, playing such lively music that little Daffy would gladly have followed them to the end of the world.

"Halt! Shoulder-arms! Quick march!" said a gruff voice in a peremptory tone.

Little Daffy started in great dismay; for the voice which had spoken to the soldiers sounded precisely the same as that which he had heard every day in Mr. Toil's school-room, out of Mr. Toil's own mouth. And turning his eyes to the captain of the company, what should he see but the

very image of Mr. Toil himself, with a smart cap and feather on his head, a pair of gold epaulettes on his shoulders, a laced coat on his back, a purple sash round the waist, and a long sword instead of a birch-rod in his hand.

"This is certainly old Mr. Toil," said the boy in a trembling voice; "let us run away, for fear he should make us enlist in the company!"

"You are mistaken again, my little friend," replied the stranger, very composedly; "this is not Mr. Toil, the schoolmaster, but a brother of his, who has served in the army all his life. People say he is a terribly severe fellow; but you and I need not be afraid of him."

"Well, well," said little Daffy; "but if you please, sir, I don't want to see the soldiers any more."

So the child and the stranger resumed their journey; and by-and-by they came to a house by the road-side, where a number of people were making merry. Young men and rosy-cheeked girls, with smiles on their faces, were dancing to the sound of a fiddle. It was the pleasantest sight that Daffy had ever met with, and it comforted him for all his disappointments.

"Oh, let us stop here," cried he to his companion; "for Mr. Toil will never dare to show his face here."

But the last words died away upon his tongue; for happening to cast his eyes on the fiddler, whom should he behold again but the likeness of Mr. Toil, holding a fiddle-bow instead of a birch-rod, and flourishing it with as much ease and dexterity as if he had been a fiddler all his life.

"Oh, dear me!" whispered he, turning pale; "it seems as if there was nobody but Mr. Toil in the world. Who could have thought of his playing on a fiddle?"

"This is not your old schoolmaster," observed the stranger; "but another brother of his, who was bred in France, where he learned the profession of a fiddler. He is ashamed of his family, and generally calls himself by a

French name, meaning Mr. Pleasure ; but his real name is Toil ; and those who have known him best think him more disagreeable than his brothers."

"Pray let us go a little further," said the boy ; "I don't like the looks of this fiddler at all."

Great was his delight on wandering along the highway to see some people reclining lazily in a shady place by the side of the road. The poor child entreated his companion that they might sit down there and take some repose.

"Old Mr. Toil will never come here," said he ; "for he hates to see people taking their ease."

But even while he spoke Daffy's eyes fell upon a person who seemed the laziest, heaviest, and most torpid of them all. Who should it be again, but the very image of Mr. Toil.

"There is a large family of these Toils," remarked the stranger. "This is another of the old schoolmaster's brothers, who was bred in Italy, where he acquired very idle habits, and took the Italian name for Mr. Donothing. He pretends to lead an easy life, but is really the most miserable fellow in the whole family."

"Oh, take me back—take me back !" cried the poor little fellow, bursting into tears. "If there is nothing but Toil all the world over I may just as well go back to the school-house."

Little Daffy had learned a good lesson, and from that time forward was diligent at his task, because he knew that diligence was not a whit more toilsome than sport or idleness. And when he became better acquainted with Mr. Toil, he began to think that his ways were not so very disagreeable, and that the old schoolmaster's smile of approbation made his face almost as pleasant as even that of his own dear mother.

NATHANIEL HAWTHORNE.

**CURIOUS BUILDERS AMONG BIRDS.**

BIRDS are the darlings of Nature—the favourites of Creation. Their plumage often assumes the most resplendent colours. They have the happy privilege of moving freely through space—now fluttering through the air, hunting the insect which flits from flower to flower ; or soaring high aloft, to swoop upon the victim marked for their prey ; again cleaving the atmosphere, and performing journeys of vast extent with great rapidity. Mankind cannot fail to admire these winged beings—some for the elegance of their form, some for the beauty of their plumage, some for the sweetness of their song, some for the grace and rapidity of their movements, and most for their wondrous skill and intelligence in building nests for the accommodation of their young.

**THE SOCIABLE WEAVER BIRD.**

This little bird, of the size and appearance of our sparrows, is very common in South Africa. Some hundreds of them form a society, and unite to construct a common dwelling

for themselves, which may be considered as a village containing as many houses as there are separate nests. This village of theirs is like a huge mushroom of thatch, built round the trunk of some great tree, and spreading far out beneath its branches. When seen at a distance it looks like a round thatched roof, suspended to the branches of a tree. Underneath the eaves of this building, all around, the birds build separate nests for themselves, just as in one of our villages each family has a separate house to itself. All day long the busy crowd of workers hurry to and fro, resembling a swarm of bees in their industry, and, like them, return laden with everything needful for the construction of their homes, or for the nourishment of their young ones.

#### THE TAILOR BIRD.

This bird owes his name to his ability to sew. The beak of a bird seems ill-adapted to needlework, but it is found to answer the purpose wonderfully well in the case of the tailor bird. His nest is a kind of bag formed of one or two very long leaves still growing on a tree. The edges of these leaves he neatly sews together by means of thread formed of a flexible kind of grass. After this the female fills the little bag with cotton-wool, and in this downy cradle the little ones are hatched, and gently rocked by every breath of wind. These wonderful structures are sometimes two yards in length; and when numerous, as they hang from the branches of trees, give a singularly<sup>1</sup> novel aspect to the landscape.

#### THE MOUND BUILDERS.

Australia is the land of strange and curious facts in natural history. Not the least of these marvels is the enormous mound raised by a bird which is about the size of a partridge, and called by the naturalist the *Megapodius*. The mound it raises for the purpose of depositing its eggs is sometimes fourteen feet high, with a circumference of a



hundred and fifty feet. Compared to the size of the bird, such a mound is a mountain, and we ask in wonder how, with its beak and claws only for pickaxe, spade, and wheelbarrow, it contrives to get together such a mass of materials.

It begins by collecting a thick bed of leaves, branches, and plants; then it heaps up earth and stones, and strews them round about in such a way as to form a dome-shaped mound,<sup>2</sup> hollowed out at the top in the form of a crater.<sup>3</sup> Here, among the leaves and herbs, the female lays eight eggs arranged in a circle.

It is very remarkable that the bird, having laid her eggs, abandons the nest, as if she knew perfectly well that sufficient heat would be engendered by the mass of vegetable matter, crammed together in the mound, to hatch the eggs without the aid of her warm feathers.

But how can she know that the little ones when born will not need her fostering care? Yet so it is. As soon as they break the shell they are full-fledged and ready for flight.

Another Australian bird acts in a similar way; only instead of an enormous mound, like that of the *Megapodius*, it collects a large heap of grass, which has somewhat the appearance of a haystack. This bird is called by the naturalist the *Talegalla*; it is of the size and look of a common fowl. This bird gleans in the fields for grass or hay, not with its beak, but with its claws. Having got together a little wisp of hay, it grasps it between the toes of one foot, and hops off to its nest on the other. When, after much patient toil, the heap has grown large enough, the female lays her eggs, and abandons them immediately,—knowing, apparently, that the hay will become heated and hatch them. The young ones, in this case also, are able to shift for themselves as soon as they leave the egg.

#### THE BOWER BIRD.

The *Satin Bower Bird* is also a native of Australia. A pair of these birds construct not merely a nest for their young,

but a bower for themselves. The couple proceed in an orderly way to build their arbour. They generally select some quiet and retired spot under the shelter of an overhanging tree. Their first care is to make a pavement of rounded shells; they next begin planting a miniature avenue<sup>4</sup> of branches. The birds arrange these branches in two parallel rows, the thick ends being firmly thrust in the ground, and the stems bent inwards so as to come in contact at the top. The arbour is about three feet in length, and left open at both ends.

As soon as the framework is finished, the loving couple set about embellishing it. For this purpose they take their walks abroad in every direction, seeking for anything bright and gay. Gleaming mother-of-pearl<sup>5</sup> shells are greatly prized; but mussel shells, white bones, and even snail shells, for want of something better, are laid as ornaments to grace the entrances; whilst within the arbour the twigs are adorned with parrot-feathers or brightly-coloured rags and bits of ribbon. Indeed, so well do the natives know the fondness of these birds for glittering or polished objects, that should they lose anything of that description, they at once endeavour to discover the bower that has been beautified at their expense.

The Satin Birds resort to these bowers, it would seem, for sport and recreation. It is their ball-room, in which they dance and turn about with the greatest spirit and liveliness, or chase each other up and down their gay apartment in an untiring whirl of delight. One of these arbours has been brought from Australia, and placed in the British Museum.

<sup>1</sup> **Singularly novel aspect.**—A very unusual appearance.

<sup>2</sup> **Dome-shaped.**—Like a basin turned upside down.

<sup>3</sup> **Crater.**—The top of a volcano, and in shape like the inside of a cup.

<sup>4</sup> **Miniature avenue.**—An avenue is an alley or passage between two rows of trees. *Miniature*—on a small scale.

<sup>5</sup> **Mother-of-pearl.**—Shining substance on the inside of the shells of the pearl oyster.

## WORK.

Down and up, and up and down,  
Over and over and over ;  
Turn in the little seed, dry and brown,  
Turn out the bright red clover.  
Work, and the sun your work will share,  
And the rain in its time will fall ;  
For Nature, she worketh everywhere,  
And the grace of God through all.

With hand on the spade and heart in the sky,  
Dress the ground and till it ;  
Turn in the little seed, brown and dry,  
Turn out the golden millet.  
Work, and your house shall be duly fed ;  
Work, and rest shall be won ;  
I hold that a man had better be dead  
Than alive, when his work is done !

Down and up, up and down,  
On the hill-top, low in the valley ;  
Turn in the little seed, dry and brown,  
Turn out the rose and lily.  
Work, with a plan, or without a plan,  
And your ends they shall be shaped true ;  
Work, and learn at first hand, like a man—  
The best way to *know* is to *do* !

Down and up till life shall close,  
Ceasing not your praises ;  
Turn in the wild white winter snows,  
Turn out the sweet spring daisies.  
Work, and the sun your work will share,  
And the rain in its time will fall ;  
For Nature, she worketh everywhere,  
And the grace of God through all.

ALICE CARY.

## THE SICK CHILD.

[This pathetic sketch is taken from the *Argosy* magazine. It is from the pen of Mrs. Wood, the gifted author of *East Lynne* and other popular novels. It gives an insight into the wretched condition of the homes of the poor in the back courts of London, and shows how indispensable fresh air is to health.]

## THE POISONED HOME.

"Is there a sick boy here, named Charles Sale?"

It was the doctor come at last: a young man, a Mr. Whatley, who had just set up in a neighbouring street, and hoped to struggle into practice. He had a shock head of hair, and a loud voice, in which he was wont to express decisive opinions; but he wanted neither for common sense nor innate kindliness. He came in sniffing emphatically, saying in a word that he had been detained, and giving a keen look round the room. Sale (the father) began to explain the features of the boy's illness, but the doctor cut it short by unceremoniously taking the candle in his hand (leaving the bottle, which Sale made a faint apology for, but the candlestick had come to pieces a night or two ago), and holding it close to the sleeping face—a wan white face, with a faint streak of pink across the cheeks, and the dry lips open. He touched the child gently, feeling his skin and his pulse.

"Shall I wake him, sir?"

"Presently," replied Mr. Whatley. He put the candle back in the bottle, and stood against the side of the mantelpiece, his elbow resting on a projecting ledge of it, in silent disregard of the broken chair Sale offered. "Have you had advice for him before?"

"I've taken him to the dispensary; but——"

"Well?" for the man had stopped.

"The gentlemen there told me they could not do much for him, sir. Nothing, in fact. All he wanted was fresh air and exercise, they said, and good living.

"And have you given him the fresh air and exercise?" Looking round the room, he did not add, "and the living."

"How could I, sir? He is not strong enough to go about with me, and he's too big for me to carry. Now and then I've put him to sit on the street-flags in the sun, but it don't seem to answer. The street has got no good air in it; and in better streets the police would only hunt him away, and tell him to move on."

The young doctor gazed steadily at the speaker. That the man was superior to his apparent class, and could answer intelligence with intelligence, was unmistakable. Sale just mentioned that he had lost two children before, also his wife; this one, Charley, had been ailing for about eight months now,—nothing seemed to nourish him. The doctor listened to all, never answering.

"What is it that's the matter with him, sir?"

"Well, I should say it was poison."

"Poison!" echoed Richard Sale.

"Poison," repeated Mr. Whatley. "He is being poisoned as fast as he can be, and the process is nearly over. Children die of it daily in London; and men and women too. You say you have lost two children already, and your wife; *they* died of poison; there can't be a doubt of it. I don't care *what* particular form the final end may take—low fever, typhus, cholera, consumption—the cause is poison, and it's bred in these horrible tenements. If I had my way, I'd blow the whole of such rookeries up sky-high with gunpowder."

\* \* \* \* \*

"Will he get well, sir?"

Mr. Whatley knew that, far from getting well, the little life was at its close. It was one of those cases where the end comes so gradually, without adequate apparent cause, as to be unsuspected by ordinary observers. Sale waited for the answer, his lips slightly parted.

"Would you rather hear the truth?" asked the plain-speaking doctor.

There was a minute's silence. "Well—yes. Yes, sir."

"I am sorry to have to tell it you. You seem to value him; and that's what can't be said, I'll wager, of all the fathers in this place. He will not get well."

"But—what's killing him?" cried Sale, with a pause and a sort of breath-catching."

"I tell you—the foul air he has breathed. It must and does affect children; and this one—as I can see at a glance—had not sufficient natural strength to throw off the poison."

#### THE BETTER HOME.

"And he'll not get well!" repeated the father, who seemed to be unable to take in the fact.

"Jenny says so too. She says I am going to heaven."

The interruption, quiet as it was, came on them with a start, and they both turned sharply. The child was lying with his eyes wide open, a bluebell in his hand; perhaps had been awake all along. Mr. Whatley bent down to the bed, and Sale held the candle.

"Who is Jenny, my little fellow?" asked he, all his roughness of manner gone, and touching the child as tenderly, speaking as gently, as if he had been lying in a satin cradle.

"She's the Bible-woman, sir," answered the boy, who had caught his father's correct diction. "She comes because I am by myself all day, and reads to me, and tells me pretty stories."

"Stories, eh? About Jack the Giant-killer?"

"No, sir; about heaven."

Mr. Whatley rose. He took a small white paper from his pocket, shot some powder from it into a teacup, and asked for fresh water—if there was such a thing.

Sale brought some, which the doctor smelt and made a face over ; and he put it to the powder and gave it the child to drink.

"He won't eat his food, sir," observed Sale.

"I dare say not. He's getting beyond it."

The boy held up the flower. "When Jenny gave me this she said there'd be prettier bluebells in heaven."

"Ay, ay," answered the young man, in a tone as though he were lost in some dream. "I'll look in again in the morning," he said to Sale, when the latter went out with him to the unsavoury alley. "Y—ah !" cried he wrathfully, as he sniffed the air.

Sale seemed to want to say something. I've not got the money to pay you now, sir. I'll bring it to you, if you please to trust me, the very first I get."

And the young man, who was a quick reader of his fellow-men, knew it would be brought, though Sale starved himself to save it. "All right," he nodded ; "it won't be much. Look here, my man," he stopped to say, willing to administer a grain of comfort in his plain way, "if it were my child I should welcome the change. He'll have a better home than this."

Sale went in again, to the stifling atmosphere and the dirty walls in the midst of which the child was dying so peacefully. The boy did not seem inclined to sleep now. He lay in bed talking, a dull glazed light in the once feverish eyes. Sale drew the three-legged stool close, and sat down upon it ; the lad put his hand into his father's, and the trifling action upset Sale's equanimity, who had been battling in silence with his shock of grief. Very much to his own discomfiture he burst into tears ; and he had not done it when his wife died.

"Don't cry, da. Is it for me ?"

"It seems hard, Charley," he sobbed. "The three rest all taken, and now you ; and me to be left alone !"

"You'll come next, da. Jenny says so. It's such a

beautiful land : music, and flowers, and sweet fresh air. Mother's there, and Bessy, and Jane ; Jesus took them home to it because it was better than this, and He's coming for me. Jenny has told it me all."

Sale made no reply. He saw how it was—that others had discerned what he had not : the sure approach of death. And the good Bible-woman had been at her work, preparing, soothing, reconciling even this little child. But it did seem very hard to the father.

"If I could have kept you all in a wholesome lodging, Charley, the illness mightn't have come on—on you or on them. God knows how I've strove to do my best. Things be against us poor, and that's a fact ; these horrible tumble-down kennels be against us."

"Never mind, da : it'll be better in heaven."

Ah, yes ! Yes, it will be better in heaven. And may God sustain all these unaided ones with that sure and certain hope as they struggle on !

The boy slept at length ; but he started continually, sometimes waking up and asking for water, sometimes rambling in speech. Sale sat and watched him through the night—he and his heavy heart.

You may be sure that the dawn could not penetrate quickly into that close place, shut in from the open light and air. It was candlelight there, but getting bright, when the boy started up, a gray look on his wan face, never before seen there.

"What is it, Charley ? Water ?"

The child looked about him, as if bewildered ; then he caught up the bluebell that lay still at hand, and held it out to his father.

"Take it, da : I can see the others up there. They are better than this."

He lay down again, his little face to the wall, and was very still—so still that Sale hushed his own breath, lest he should disturb him. The sounds of the day were com-



mencing outside : two women had already pitched upon some point of dispute, and were shrieking at each other with shrill voices. By-and-by Sale leaned over to look at the still face, and saw what had happened—that it was still for ever !

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### MOHAMMED.

MOHAMMED,<sup>1</sup> the son of Abdallah, was born at Mecca (A.D. 569). Left an orphan in early childhood, he grew up under the care of his uncle, Abu Taleb, and won all hearts by the beauty of his countenance and the eloquence of his tongue. At twenty-five he entered the service of Cadijah, a rich and noble widow, and soon won her hand and fortune. At the age of forty he proclaimed himself a prophet, after spending much time in religious contemplation in the caves and deserts around Mecca. One day, he says, while sunk in despondency, and on the point of destroying himself, he suddenly beheld between heaven and earth the angel Gabriel, who assured him that he was the prophet of God. From that moment Mohammed preached the religion called *Islam* (surrender), because the duty of ready submission to God's will formed one of its leading tenets. His disciples assumed the name of Moslems or Mussulmans.

The creed of Mohammed is embodied in the Koran,<sup>2</sup> a book containing the pretended revelations made by the angel Gabriel to the prophet. The two chief articles of his creed were these : There is but one God, and Mohammed is His prophet. He acknowledged the authority of Moses and our Lord, and asserted that he came to complete their work. He inculcated four great religious duties : pilgrimage, prayer, fasting, and almsgiving. Every Moslem<sup>3</sup> is expected to make a pilgrimage to Mecca at least once in his lifetime, but this may be done by proxy.<sup>4</sup> The believer

is encouraged to hope that prayer will carry him half-way to God, fasting will bring him to the door of His palace, and alms will gain him admittance. Five times a day the devout Moslem is directed to turn his face towards Mecca and pray, wherever he may be, or however he may be employed; and as cleanliness is supposed to be "the key to prayer," sundry ablutions<sup>5</sup> are also enjoined as a suitable preparation thereto. A rigid fast is to be observed from sunrise to sunset during the month Rhamadan; pork and wine are prohibited at all times. A tenth of one's income is stated to be the true measure of charity. The prophet also revealed to his disciples the nature of rewards and punishments hereafter. Paradise is reserved for his own faithful Moslems, and they can only reach the golden gates by passing over the sharp and perilous bridge of the Abyss,<sup>6</sup> into which the guilty fall as they attempt with tottering steps to cross. Mohammed paints his paradise as a place of sensual<sup>7</sup> delights, where the meanest believer will dwell in palaces of marble, clothed in robes of silk and surrounded by every pleasure that can gratify the senses.

When Mohammed had resolved upon assuming the prophetic office, he assembled forty of his kinsmen, and having explained to them the nature of his mission, he exclaimed, "Who among you will be my vizier<sup>8</sup>?" "O prophet," replied the youthful Ali, "I am the man: whoever rises against thee I will dash out his teeth, tear out his eyes, break his legs, and cleave his skull." These words breathe the spirit that long distinguished the disciples of the martial prophet. When Abu Taleb, Ali's father, tried to prevail upon Mohammed to relinquish his design, he replied, "If they should place the sun on my right hand, and the moon on my left, they shall not divert me from my course."

For ten years the new religion made slow and painful progress within the walls of Mecca. A plot was then formed against Mohammed's life. But flight saved the prophet from an assassin's sword. At the dead of night, accom-

panied by his friend Abu Beker, he silently escaped from his house, leaving Ali reposing on his bed, with the prophet's green vestment over him to deceive the assassins watching at the door. Three days Mohammed and his friend were concealed in the cave of Thor, about a league from Mecca. His enemies, the Koreish,<sup>9</sup> came to the mouth of the cave; but a spider's web across the entrance convinced them that the fugitive was not there. Soon afterwards Mohammed escaped to Medina, where he was received with faith and reverence (A.D. 622). This flight is called the *Hegira*, and forms the Mohammedan era from which Moslems have since reckoned the years.

At Medina the first mosque<sup>10</sup> was built, and here began the public worship of the Moslems. The worshippers were summoned by a voice sounding from the minaret of the mosque, "God is great! God is great! There is no God but God. Mohammed is the apostle of God. Come to prayers, come to prayers." At early dawn it was added, "Prayer is better than sleep."

Mohammed reigned supreme at Medina, but his kingdom was for some time confined within the walls of that city. Ere long the prophet became impatient of the slow progress made by persuasion, and determined to try the sharp argument of the sword. The prophet's white banner, hung over the gates of Medina, allured from all sides bands of roving Arabs, who readily embraced the new creed, and as readily propagated it with the sword. "The sword," they were taught, "is the key of heaven and hell; whoever falls in battle in the holy cause has all his sins instantly cancelled; and the loss of his limbs shall be supplied with a seraph's wings." The Arabs, who had always despised death, now regarded it as an object of hope and desire. No alternative was given to idolaters but conversion or death, and in this way the new religion rapidly spread. The death-blow was given to idolatry in Arabia by the capture of Mecca and the destruction of the 360 idols of the Caaba.<sup>11</sup> The conquest

of the whole country soon followed, and before his death the prophet's empire extended from the Euphrates to the Red Sea.

Meanwhile Mohammed was getting old. He had laid all his sons in the grave ; his daughter Fatima, married to Ali, alone remained to him. At length, in the sixty-third year of his age, Mohammed gave permission, as he tells us, to the angel of death to take his soul. He tottered to the mosque, and for the last time preached *Islam* to the people. "Everything happens," said he, "by the will of God, and has its appointed time, which is not to be hastened or avoided." A few days after this there was grief in every Arab tent. With faltering voice he uttered his last broken though articulate words: "O God, pardon my sins . . . Yes . . . I come . . . among my fellow-citizens on high ;" and thus peaceably expired on a carpet spread upon the floor of his house at Medina, where he was afterwards buried (A.D. 632). —*Dawe's "Landmarks of General History,"* published by Collins and Sons.

<sup>1</sup> **Mohammed**, or Mahomet.—The founder of the Mahometan religion. The Turks, Arabs, Persians, Egyptians, and Moors, are for the most part Mahometans.

<sup>2</sup> **Koran**.—The sacred book of the Mahometans. They regard the Koran as we do the Bible.

<sup>3</sup> **Moslem**, or Mussulman, is another name for a Mahometan.

<sup>4</sup> **By proxy**.—By the agency of another.

<sup>5</sup> **Sundry ablutions**.—Various kinds of washings.

<sup>6</sup> **Abyss**.—The bottomless pit.

<sup>7</sup> **Sensual delights**.—Pleasures derived from the gratification of the senses—seeing, hearing, etc.

<sup>8</sup> **Vizier**.—At the present day the prime minister of Turkey is called the Grand Vizier. He is the Sultan's chief adviser.

<sup>9</sup> **Koreish**.—Name of an Arab tribe to which Mahomet belonged.

<sup>10</sup> **Mosque**.—A Mahometan place of worship. A **minaret** is a turret on the mosque.

<sup>11</sup> **Caaba**.—A heathen temple in Mecca, containing a certain stone which the Arabs, before the time of Mahomet, regarded with peculiar reverence. This stone was supposed by them to be a petrified angel, once pure white, but in the course of ages blackened by the lips of sinners,—for all pilgrims to the Caaba were accustomed to kiss this stone.

## TO THE RAINBOW.

[THOMAS CAMPBELL, one of the finest lyric poets of the present century, was born at Glasgow in 1777. His chief poem is entitled *The Pleasures of Hope*. Many of his minor pieces are well known: such as, *Ye Mariners of England*, *Hohenlinden*, *Lord Ullin's Daughter*, *The Soldier's Dream*, and the *Battle of the Baltic*. He is also the author of *Lochiel's Warning*, and *Gertrude of Wyoming*.]

TRIUMPHAL arch, that fill'st the sky  
 When storms prepare to part,  
 I ask not proud philosophy  
 To teach me what thou art :—

Still seem, as to my childhood's sight,  
 A midway station given  
 For happy spirits to alight  
 Betwixt the earth and heaven.

Can all that optics<sup>2</sup> teach unfold  
 Thy form to please me so,  
 As when I dream'd of gems and gold  
 Hid in thy radiant bow ?

When Science from Creation's face  
 Enchantment's veil withdraws,  
 What lovely visions yield their place  
 To cold material laws !

And yet, fair bow, no fabling dreams,  
 But words of the Most High,  
 Have told why first thy robe of beams  
 Was woven in the sky.

When o'er the green undeluged earth  
 Heaven's covenant thou didst shine,  
 How came the world's gray fathers forth  
 To watch thy sacred sign.

And when its yellow lustre smiled  
 O'er mountains yet untrod,  
 Each mother held aloft her child  
 To bless the bow of God.

Methinks, thy jubilee<sup>a</sup> to keep,  
 The first-made anthem rang  
 On earth, deliver'd from the deep,  
 And the first poet sang.

Nor ever shall the Muse's<sup>4</sup> eye  
 Unraptured greet thy beam  
 Theme<sup>a</sup> of primeval prophecy,  
 Be still the prophet's theme !

The earth to thee her incense yields,  
 The lark thy welcome sings,  
 When, glittering in the freshen'd fields,  
 The snowy mushroom springs.

How glorious is thy girdle cast  
 O'er mountain, tower, and town,  
 Or mirror'd<sup>6</sup> in the ocean vast,  
 A thousand fathoms down.

As fresh in yon horizon dark,  
 As young thy beauties seem,  
 As when the eagle from the ark  
 First sported in thy beam.

For, faithful to its sacred page,  
 Heaven still reveals thy span,  
 Nor lets the type<sup>7</sup> grow pale with age  
 That first spoke peace to man.

**Proud Philosophy.**—Science with  
 proud claims to decide the truth.

**Optics.**—Science which treats of the  
 of light.

**Jubilee.**—Among the Jews every  
 50th year ; any season of great public  
 rejoicing.

**Muse.**—Goddess of poetry, etc.

**Theme, etc.**—Subject of prophecy

in very ancient times—in allusion to God's  
 promise never to drown the world again,  
 of which the rainbow is the token.

**Mirrored, etc.**—The image of the  
 rainbow is formed in the ocean as far  
 below the surface as the rainbow is above  
 it.

**The type.**—The symbol or token  
 (*vide* 5 above).

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### TRANSFORMATIONS OF INSECTS.

MOST of my readers have seen the "Transformation Scene" in a Pantomime, and been surprised and delighted at the gorgeous spectacle; but the transformations<sup>1</sup> which insects undergo are much more wonderful and much more worthy of admiration.

Who could have guessed that the large butterfly which he sees sitting upon a peach, opening and shutting its broad wings of velvet-black, banded with brilliant scarlet, to the warm autumnal sun, is identically the same being as a black spiny caterpillar,<sup>2</sup> which a month ago we observed engaged with a dozen others in devouring the leaves of some nettles in a ditch? But such is the fact; the caterpillar has become a butterfly. Let us trace out its wonderful history.

Taking for our example the butterfly known as the Red Admiral, described above, we must seek its birthplace in a bed of nettles. No sooner have the nettles thrown out their new shoots in the spring, than butterflies of this and other kinds may be seen hovering over them, and occasionally touching a leaf. At each contact a little egg is left, stuck on the plant by a gummy secretion from the body of the butterfly. A considerable number are deposited on one plant, and from them in a short time a little swarm of caterpillars appears.

If you carefully watch one of these creatures, you may observe that it eats voraciously, and grows proportionately fast. In about a week its skin becomes too tight for its increased size, and accordingly you will find that it discards this skin like a worn-out coat, and appears in a new skin full of puckers, thus affording ample space for further growth. After its skin has been moulted three times, at intervals of a week or ten days, the caterpillar attains its full growth. It is now ready for the next stage of its existence.

The caterpillar now ceases to eat; it shrivels up, casts off

its skin, takes on a new form, and becomes motionless. It is then that the name of nymph, pupa, or chrysalis is given to it. The chrysalis is wholly enclosed in a skin-case, like a corpse in a winding-sheet. In this state it looks like a mummy<sup>3</sup> enveloped in bandages. It bears the outward image of death; but there is a hidden life within. A practised eye can even now detect in this *swathed mummy* all the external parts of the future butterfly.

About a month suffices in summer for the chrysalis to undergo the changes necessary for its appearance in the form of a butterfly. These changes go on silently and secretly under its skin wrapper.

And now the interesting moment, the dawn of a new life, being come, the curtain is drawn aside—that is, the outer skin is rent asunder—and the butterfly, in its full beauty, comes into view, not in a moment, but by degrees, like the fairies in a “Transformation Scene.” When the butterfly first appears, its wings are small and shapeless; then they are seen to crumple up in a strange manner, as if they were hopelessly spoiled. But let the spectator wait awhile, and he will see them grow wider and longer, and at the same time more crumpled; at length, when their full dimensions are attained, the wrinkles imperceptibly but rapidly disappear, and the gorgeous wings are expanded in their unruffled beauty. They are still, however, soft and flabby, like a wet cloth, and incapable of being erected; but every moment serves to strengthen them, and in about an hour from the time when the first crack appeared on the back of the pupa, the lovely creature begins to open and shut its fairy wings, and then to try its new-born powers in the sunny air.

The butterfly may be regarded as a type<sup>4</sup> of insects generally. The bee may be taken as another familiar instance of the transformation undergone by this class of creatures. The queen-bee is the mother of the hive. After she has deposited an egg in one of the cells, it remains three days; on the fourth day the shell is burst, and a small lively



worm appears; this little worm is called a grub or larva. The nurse-bees immediately minister to its wants by supplying it with bee-bread. When full-grown, the larva spins some silky threads around its body, and then changes into the apparently lifeless form of the pupa, to emerge in due time as a "busy bee." Not less remarkable is the fact that, on the very same day it appears in the form of a bee, it is not only able to use its wings, but it seems perfectly aware, without any previous instruction, what are to be its duties and employments for the rest of its life.

It thus appears that an insect has four stages of existence: first as an egg; then in the form of a worm, under the name of a grub, larva, or caterpillar; then as a pupa, nymph, or chrysalis; and lastly, as a winged insect. Such being the transformations which insects undergo, it becomes easier for us to believe in the changes in store for ourselves. While alive on earth we are as the worm, when in the grave as the chrysalis, and after the resurrection as the winged insect.

<sup>1</sup> **Transformation.** — A change of form or state. that is, one preserved in spices, etc. The Egyptians were skilful in the art of embalming. A *swathed mummy* is one wrapped up in bandages.

<sup>2</sup> **Spiny caterpillar.** — Covered over with stiff hairs.

<sup>3</sup> **Mummy.** — An embalmed corpse,

<sup>4</sup> **Type**—Pattern, model.

## GRAPES OR THORNS.

WE must not hope to be mowers,  
And to gather the ripe gold ears,  
Until we have first been sowers,  
And watered the furrows with tears;

It is not just as we take it —  
This mystical world of ours;  
Life's field will yield, as we make it,  
A harvest of thorns or flowers.

Alice Cary.

**MARVELS OF INSECT LIFE.****THE ANT.**

THERE is much in the ant and the bee that commands our admiration. The bee is the most wonderful of insects for its social order and government, its prudence, skill in architecture, and general intelligence, and though it is also an example of patient industry, the ant, perhaps, is still more unwearied in its exertions. Night and day an ants' nest is the scene of incessant toil. Much of this labour, however, is wasted. Ants seem to lack that method and unity of design for which bees are so justly celebrated. In the arts of peace the ant is undoubtedly inferior to the bee, but in warfare its feats are truly astonishing.

As the white men in times past ruthlessly captured the poor blacks of Africa and transported them as slaves to their colonies in America, so it seems there are tribes of ants that in like manner make raids upon the nests of other tribes in search of slaves for their own households. The red ants, like the Red Indians, think useful work beneath their dignity. They therefore attack a nest of industrious ants of another species, whenever they are in want of domestic servants. The red or warrior ant is called the Amazon, and the species they enslave is either the black ant or the miner ant.

"On the 17th June, 1804," says Huber, "whilst walking in the environs of Geneva, between four and five in the evening, I observed a column of Amazon ants crossing the road. They moved with considerable rapidity, and occupied a space of from eight to ten inches in length by three or four in breadth. I followed them into a meadow, and observed them winding along the grass without straggling. They soon approached a nest inhabited by a colony of the negro ant, the dome of which rose above the grass at the

distance of twenty feet from a hedge. Some of the negroes were guarding the entrance; but on the discovery of an approaching army, darted forth upon the advancing legion.<sup>1</sup> The alarm instantly spread into the interior, whence their companions rushed forth in multitudes to defend their common home. The Amazons, the bulk of whose army lay only at the distance of two paces, quickened their march, and when they arrived at the hill the whole battalion fell furiously upon the negroes, who, after an obstinate though brief conflict, fled to their subterranean galleries.<sup>2</sup>

"The Amazons now ascended the dome, collected in crowds on the summit, and taking possession of the principal avenues, left some of their companions to excavate other openings in the exterior walls. They soon effected this, and through the breach the remainder of the army made their entrance. In about three or four minutes afterwards they issued forth again, each carrying off either a pupa or a grub,<sup>3</sup> with which booty they retraced their route in a straggling, irregular march, very different from the close orderly array they had before exhibited."

When the Amazon ants take the field against the miner ant, of which they generally make use, they exercise every precaution, knowing that they have no contemptible foe to contend with. Having approached the nest they intend to rifle, they find the entrance barred by the warriors of the community. A hot contest ensues, which generally ends in the victory of the Amazons, who penetrate into the very heart of the enemy's citadel, and pry into every nook and corner of the place in order to choose their victims, the larvæ and the nymphs.<sup>4</sup> The workmen that oppose these raids are simply thrown down; they are not made prisoners, because they would not make willing slaves; the assailants only want the young ones, which can easily be trained to do the work of their masters.

When the nest is completely sacked,<sup>5</sup> each conqueror takes a nymph or a larva tenderly between its teeth, and

prepares to return. This homeward march is conducted in close array, for the courageous miners often hang upon their rear, ready to fall upon any stragglers and recapture their prize.

During these contests the pillaged ant-hill presents in miniature the spectacle of a besieged city; hundreds of the inhabitants being seen to quit it with their young in their mouths. When the danger appears to be over, they bring them back to the city, and barricade the entrance, near which a strong guard is posted.

In tropical<sup>6</sup> countries the ant is very useful in clearing off dead and decaying substances, which might otherwise prove injurious to health. Some species are the declared enemies of vermin of every kind. A lady has described a visit which she received from the *Chasseur ants* of Trinidad,<sup>7</sup> while seated one morning at breakfast. "The open rafters of a West India house," she says, "at all times afford shelter to a numerous tribe of insects—more particularly the cockroach; but now their destruction was inevitable. The *Chasseur* ants, as if trained for battle, ascended in regular files to the rafters, and threw down the cockroaches to their comrades on the floor. When the ants had cleared off the insects, they commenced an attack upon the rats and mice, which, strange as it may appear, were no match for their apparently insignificant foes. They surrounded them, covered them over, and dragged them off with a celerity and union of strength truly astonishing. I did not see one rat or mouse escape, and I am sure I saw a score carried off during a very short period."

The size of some of the ant-hills in hot countries is astonishing. The *Termites*, or white ants, sometimes raise a hill twenty feet in height, and very commonly the height attained is ten or twelve feet. At first they are quite bare, but in time they become covered with grass and other plants; and in the dry season, when the herbage is burnt up by the rays of the sun, they are not unlike very large hay-



cocks. The walls of these dwellings are so solid that the wild cattle climb upon them without crushing them; and the interior contains chambers so large that a dozen men can find shelter in them. The wild cattle stand upon them when on duty as sentinels; and the hunters conceal themselves within when waiting for their quarry.<sup>8</sup>

<sup>1</sup> **Legion.**—Originally the name given to a division of the Roman army, from 3,000 to 5,000 men.

<sup>2</sup> **Subterranean Galleries.**—Underground passages [*L. sub*, under; *terra*, the earth].

<sup>3</sup> **Grub.**—*Vide* lesson on "Transformations of Insects," page 30.

<sup>4</sup> **Nymph.**—*Vide* page 30.

<sup>5</sup> **Sacked.**—Plundered. Soldiers after

taking a town by storm generally "sack" or plunder the place.

<sup>6</sup> **Tropical Countries.**—Those situated within the tropics, that is, between 23½ degrees on each side of the equator.

<sup>7</sup> **Trinidad.**—One of the West India islands belonging to England.

<sup>8</sup> **Quarry.**—Prey; what is taken in hunting.

## MARVELS OF INSECT LIFE.

### THE HONEY BEE.

A HIVE of bees consists of one female or *queen*, several hundreds of males or *drones*, and many thousand *workers*; and besides these three classes of bees, there is in the spring a young family growing up, requiring to be nursed and nourished till the time has come for them to *swarm*—that is, leave the old home and find a new one for themselves. The interior of the hive is occupied with a set of combs, which are full of little hexagonal<sup>1</sup> *cells*. The walls of the cells are composed of *wax*, which is not collected from flowers, but exuded from the body of certain bees, that swallow honey or sugar for the purpose. When the wax-workers are producing wax they suspend themselves to each other, the claws of the fore-legs of one being hooked on to the claws of the hind-legs of another. The first use of these cells is to receive the eggs which the queen-bee deposits, and to serve as nurseries for the young ones. Another use is as store-rooms for honey. It is collected by the workers by

means of their tongues, which are used for lapping up the sweet juice or nectar of flowers. The nectar is conveyed to the stomach, and the bees on reaching the hive disgorge their treasure into the cells. Each cell as it becomes full is sealed up for future use. The busy workers seem to keep up a constant hum when on the wing, as if they were singing while at work. But really the hum is caused by the rapid vibrations of their wings ; you may observe whenever a bee ceases to move its wings it also ceases to hum.

No one can inspect the interior of a bee-hive without being struck with admiration. The spectator beholds a city in miniature. He sees this city divided into regular streets, these streets composed of houses, so symmetrically<sup>2</sup> formed and so wisely planned that every inch of space is turned to account. Some of these houses serve as magazines for food, others as dwelling-houses for the common citizens, and a few, much more extensive than the rest, as palaces for the sovereign. And the whole is the work of a society of insects ! And what is more surprising is the perfection with which each member of the hive performs its task without spending a moment in learning. When the working-bee has cut its way out of the cell in which it has been sealed up while in its pupa state, it begins at once to take its part in the work, as if it had spent a long apprenticeship in learning it.

Nor does instinct act blindly in these wonderful creatures, as it seems to do in most cases ; but it enables them to contrive special measures to meet unexpected difficulties. When an enemy little to be dreaded sneaks into a hive of bees, the first sentinels that see it pierce it with their stings, and in the twinkling of an eye eject the corpse from their common abode. The work is not interrupted by such an event. But should the aggressor be a strong and heavy slug, another course is adopted. The whole hive is in a stir ; each bee gets ready his weapon, whirls round the intruder, and pierces it with his dart. Assailed with fury

wounded on all sides, and poisoned with the venom, the invader dies. But what is to be done with the unwieldy carcase of the enemy? The little feet of all the tribe would not suffice to stir the corpse, but to let it rot where it lies would be dangerous to the health and comfort of the colony. In this emergency the wise little insects set to work to embalm the dead body. They ransack the country round for resinous matter,<sup>3</sup> such as clings to the buds of plants, and with it they envelop the corpse, which is thus preserved from putrefaction. If instead of a soft slug, vulnerable on all sides, a snail bearing its castle on its back should enter the hive, a totally different plan is found necessary. As soon as the swarm begins to attack, the mollusc<sup>4</sup> withdraws itself into the shell, and turns the open part downwards. The bees soon perceive that their enemy is too well fenced for them to kill, and too heavy for them to expel. They, accordingly, proceed to seal its fate by glueing it to the ground with a layer of resinous matter deposited round the edges of the shell. The enemy must then necessarily die in his castle, for all movement, all escape is henceforth impossible.

Bees are especially remarkable for making the common<sup>5</sup> good of the community their sole aim. They seem to know that respect and obedience to the ruler of the hive—that is, to the queen—is essential to the general welfare of the society. She is the object of constant and universal attention; and wherever she goes is loyally greeted.<sup>6</sup> It is otherwise with the drones or male bees, who are merely the fathers of the family, but do nothing towards the support of their children. Accordingly, as soon as their presence in the hive is no longer desirable, the workers set upon these idlers and sting them to death, being resolved that as they will not work they shall no longer eat. The workers are not only busy bees, but they are active in the way which tends best to the common good. Thus in summer the bees would find the heat of the hive intolerable if it were not kept well ventilated. This is effected by a party of bees, near the entrance, causing

4



their wings to vibrate rapidly. This hard work is kept up during the day, and in very hot weather by night also, by distinct gangs, each doing duty for about half an hour. Thus it appears that every member of the hive has its appointed duties, which it performs for the general benefit of the community.

<sup>1</sup> **Hexagonal cells.**—Cells with six sides [Gr. *hex*, six; *gonia*, an angle].

<sup>2</sup> **Symmetrically formed.**—Evenly shaped: all the cells have six equal sides.

<sup>3</sup> **Resinous matter.**—A gummy matter which serves to keep the buds compact during the winter.

<sup>4</sup> **Mollusc.**—A soft flabby creature,

provided with one or more shells, like a mussel or an oyster.

<sup>5</sup> **The common good.**—The general welfare. *Common* properly means belonging equally to many; thus a *common* is a piece of ground belonging to no one in particular.

<sup>6</sup> **Loyally greeted.**—Welcomed with marks of the highest respect.

## MARVELS OF INSECT LIFE.

### THE SPIDER.

SPIDERS, strictly speaking, are not insects; for they do not undergo those transformations<sup>1</sup> which distinguish insects. There are many different kinds of spiders, having different habits of life and different methods of taking their prey; but they all show the same wariness<sup>2</sup> and perseverance in providing for themselves and their young. The greater number weave curious webs to entangle flies and other small insects. But there are some spiders which never make webs; they either hunt their victims and pounce upon them unawares, or lie in ambush<sup>3</sup> for them in holes in the earth, in crevices of walls or trees, or even in the cup of a flower. And there is one species, named the *Water Spider*, that lurks for its prey near the bottom of some pool. As her name implies, she lives chiefly in the water, swimming about with great speed and dexterity. She is an admirable diver, making descents and ascents in the water with the greatest facility. Her home is the midst of water, and yet she contrives to fill it with air, and to keep her young ones dry,

Her abode is a kind of diving bell, which, strange to say she constructs below water, and then fills with vital air.<sup>6</sup> This miniature bell is composed of silken threads, and is attached



to the stems and leaves of aquatic<sup>7</sup> plants by means of numerous threads, which serve to retain it in position, just like a balloon is held back till the moment arrives for its voyage.

Having spun the silken envelope which is to form her future home, and varnished it over to make it water-tight, the little creature proceeds to fill it with air. For this purpose the spider comes to the surface of the pool, takes a bubble of air under her abdomen, in some way not understood, and plunging to the bottom, transfers it to her submerged<sup>8</sup> abode; and she repeats these voyages till the bell is completely filled with air. The spider is now in possession of a little aerial<sup>9</sup> edifice—I had almost said a fairy palace—affording her a commodious and dry retreat in the very midst of the water. Here she reposes, unmoved by the storms that agitate the surface of the pool, and devours her prey at ease and in safety. Here she passes the winter and rears her young; and when pressed by hunger, the bell serves as a lair from which she makes a sudden sally upon her prey as it passes by.

Another of these robbers, called the *Trap-door Spider*, burrows in the ground, and makes there a nest for itself and its family. Its habitation consists of a cylindrical<sup>4</sup> hole, from a few inches to a foot in length, lined throughout with silken threads from its own body. But the most wonderful part of the structure is the trap-door, which turns upon a well-made hinge, and closes the entrance to the dwelling. This door, or lid, is composed alternately<sup>5</sup> of layers of silk and earth. The hinge is of silk, and so well constructed that the door can be opened and shut with the greatest ease. The door is so well fitted to the edge of the nest that, when closed, the spider's dwelling is like a well-corked bottle.

This door is intended by the spider for his own private use. He therefore takes care to conceal the lid by mosses and other plants that grow round about. When the spider wishes to sally forth, he cautiously lifts the lid, which shuts behind him by its own weight. On returning home with his booty, he lifts the lid, and in a moment more spreads a table for his family at the bottom of his den. Should the robber be attacked in his den, he rushes at the first sign of alarm to

secure the door, by laying hold of its lining with one half of his claws, while with the other half he clings to the lining of the nest.

It may seem strange that creatures of this kind, which lie in wait for blood, should yet be capable of the greatest affection. There is a spider often found under clods of earth, having a white globular silken bag of eggs, about the size of a pea, attached to her body. She clings to this bag with the greatest fondness ; if deprived of it, she makes the most desperate efforts to regain it, and will brave any danger rather than abandon her precious load. If all her efforts to retain it are ineffectual, life itself appears to have lost its charms. But if she recovers the bag, her eagerness in seizing it and running off with her prize proves how great is her joy.

This wonderful attachment was once put to an affecting and decisive test. Bonnet, the naturalist, threw a spider with her bag into the hole of a large ant-lion—a ferocious insect, which conceals itself at the bottom of a conical hole constructed in the sand, for the purpose of catching its prey. The spider endeavoured to escape, but could not prevent the ant-lion from seizing the bag of eggs, which it attempted to pull under the sand. She struggled with all her might, but her antagonist drew away the bag. The spider then instantly caught hold of it with her jaws, and endeavoured, but in vain, to rescue the prize. She followed the treasure on which her heart was fixed to the bottom of her adversary's den, thus risking her life rather than relinquish<sup>10</sup> the object of her maternal hopes.

The attachment of the mother is quite as remarkable when the young spiders are hatched. On coming out of the bag, they attach themselves in clusters upon different parts of her body ; and in this situation she carries them about and feeds them, until they are big enough to provide for themselves. While the young spiders thus cover by hundreds the body of the mother, it is a most amusing sight to see them, on the

slightest alarm, leap from her back and run away in every direction.

<sup>1</sup> **Transformations, etc.**—Changes from the egg to the worm or grub, and then to the pupa; and, lastly, to the winged insect (*vite* pp. 30–32 on the "Transformations of Insects").

<sup>2</sup> **Wariness.**—Cautiousness; keeping on one's guard. Not to be confounded with *weariness*, fatigue.

<sup>3</sup> **In ambush.**—Hidden from the enemy, and ready to pounce out at the right moment.

<sup>4</sup> **Cylindrical hole.**—In the shape of a hollow roller, or water-pipe.

<sup>5</sup> **Alternately.**—First one and then the other [L. *alter*, the other].

<sup>6</sup> **Vital air.**—Air capable of supporting life [L. *vita*, life].

<sup>7</sup> **Aquatic plants.**—Plants that grow in water [L. *aqua*, water].

<sup>8</sup> **Submerged abode.**—Under-water dwelling [L. *sub*, under; *mergo*, to plunge].

<sup>9</sup> **Ærial.**—Of the nature of air. The dots over the *e* are called a diæresis, and indicate that the vowels *a* and *e* are to be separately pronounced (a-ë-rial).

<sup>10</sup> **Relinquish, etc.**—Leave go the thing on which her hopes as a mother were set [L. *linguo*, to leave; *mater*, mother].

## A KING'S SOLILOQUY ON SLEEP.

[WILLIAM SHAKESPEARE was born at Stratford-on-Avon, 1564, and died there, 1616.

He is generally acknowledged the greatest poet whom England or any other country has ever produced. His poems are mostly in the form of plays, or dramas, in which he shows a marvellous insight into human nature. In the large number of characters he has depicted, there is an endless variety; no two are alike, yet all are true to nature. In his dramas every type of human nature is faithfully drawn and coloured. His greatest plays are *Hamlet*, *Macbeth*, *Othello*, and *King Lear*. Many of his dramas are founded on English history. The following extract is from *Henry IV.*]

How many thousand of my poorest subjects  
Are at this hour asleep!—Sleep, gentle sleep,  
Nature's soft nurse, how have I frighted thee,  
That thou no more wilt weigh my eyelids down,  
And steep my senses in forgetfulness?  
Why rather, sleep, liest thou in smoky cribs,  
Upon uneasy pallets<sup>1</sup> stretching thee,  
And hush'd with buzzing night-flies to thy slumber,  
Than in the perfumed chambers of the great,  
Under the canopies<sup>2</sup> of costly state,  
And lull'd with sounds of sweetest melody?  
O thou dull god! why liest thou with the vile,  
In loathsome beds, and leav'st the kingly couch  
A watch-case,<sup>3</sup> or a common 'larum bell?  
Wilt thou, upon the high and giddy mast,  
Seal up the ship-boy's eyes, and rock his brains  
In cradle of the rude imperious<sup>4</sup> surge;  
And in the visitation of the winds,  
Who take the ruffian<sup>5</sup> billows by the top,

Curling their monstrous heads, and hanging them  
 With deaf'ning clamours in the slippery clouds,  
 That, with the hurly,<sup>g</sup> death itself awakes?—  
 Canst thou, O partial<sup>h</sup> sleep, give thy repose  
 To the wet sea-boy in an hour so rude;  
 And, in the calmest and most stillest night,  
 With all appliances and means to boot,<sup>i</sup>  
 Deny it to a king?—Then, happy low, lie down!  
 Uneasy lies the head that wears a crown.

<sup>g</sup> **Pallet.**—A straw mattress.

<sup>h</sup> **Canopy.**—A covering over the head.

<sup>i</sup> **A watch-case, etc.**—The king complains that his bed is like a watch-case, because he himself is like a watch counting the hours and minutes throughout the night.

<sup>j</sup> **Impericus surge.**—The scaming billows tossed on high.

<sup>k</sup> **Ruffian.**—Boisterous.

<sup>l</sup> **Hurly.**—Excessive noise.

<sup>m</sup> **Partial sleep.**—Favouring one more than another.

<sup>n</sup> **To boot.**—To profit; to advantage.  
**With all appliances, etc.**—With everything that is calculated to invite sleep, such as a quiet room and a downy bed.

## JOHN BUNYAN.

THE author of the “Pilgrim’s Progress” was John Bunyan, the son of a poor tinker. He was born at the village of Elstow, close to Bedford, in the year 1628. Though a poor man’s son, he was educated at the Bedford Grammar School, which was founded by Sir William Harpur, Lord Mayor of London, in 1556, for the teaching of “grammar and good manners” to the children of the poor.

According to Bunyan’s own account of himself, in his boyhood he had but few equals “for cursing, swearing, lying, and blaspheming the holy name of God. Yea, so settled and rooted was I in these things, that they became as a second nature to me.” It is probable, however, that he was by no means such a young reprobate as he has represented himself. When in later years he reflected on his mis-spent time in years gone by, it is almost certain that his fervid imagination<sup>1</sup> painted the pictures of his early life much blacker than the reality.

Those horrible internal conflicts which Bunyan has described prove, not that he was a worse man than his

neighbours, but that his mind was constantly occupied by religious considerations, that his fervour exceeded his knowledge, and that his imagination exercised despotic power over his mind and his body. He heard voices from heaven. He saw strange visions of distant hills, pleasant and sunny as his own "Delectable<sup>2</sup> Mountains." From those abode he fancied himself shut out, and placed in a dark and horrible wilderness, where he wandered through ice and snow, striving to make his way into the happy region of light. At one time he was seized with an inclination to attempt to work miracles,<sup>3</sup> by way of testing his chance of salvation. At another time he thought himself actually possessed by the devil. He could distinguish the blasphemous whispers. He felt his infernal enemy pulling at his clothes behind him. He spurned with his feet and struck with his hands at the destroyer. Sometimes a violent impulse urged him to start up from his food, to fall on his knees, and to break forth into prayer. At length he fancied that he had committed the unpardonable sin.<sup>4</sup> His agony convulsed his robust frame. He was, he says, as if his breastbone would split; and this he took for a sign that he was destined to burst asunder, like Judas. The agitation of his nerves made all his movements tremulous; and this trembling, he supposed, was a visible mark of his reprobation,<sup>5</sup> like that which had been set on Cain.

At one time, indeed, an encouraging voice seemed to rush in at the window, like the noise of wind, but very pleasant and commanded, as he says, a great calm in his soul. At another time, a word of comfort "was spoke loud unto him; it showed a great word; it seemed to be writ in great letters.

But these intervals of ease were short. His state during two years and a half was generally the most horrible that the human mind can imagine. "I walked," says he, with his own peculiar eloquence, "to a neighbouring town; and sat down upon the settle in the street, and fell into a very deep pause about the most fearful state my sin had brought

me to ; and, after long musing, I lifted up my head ; but methought I saw as if the sun that shineth in the heavens did grudge to give me light, and as if the very stones in the street and tiles upon the houses did band themselves against me. Methought that they all combined together to banish me out of the world. I was abhorred of them, and unfit to dwell among them, because I had sinned against the Saviour. Oh, how happy now was every creature over I !—for they stood fast and kept their station. But I was gone and lost.” Scarcely any madhouse could produce an instance of delusion so strong or of misery so great.

But peace came at last to his tempest-tossed soul. In 1653 we find him attached to the Baptist<sup>6</sup> community at Bedford ; and three years later he began to preach as a Baptist minister. This he continued to do until the Restoration of Charles II. (A.D. 1660), when he was arrested while preaching, tried, condemned, and thrown into prison for Nonconformity.<sup>7</sup> Such was the spirit of religious intolerance which then prevailed in the country. It was not until 1672, when the King issued his *Declaration of Indulgence*, that Bunyan was released.

While in prison, he contrived to earn a scanty support for his family of young children by making thread laces ; and he relieved the monotony of his prison life by writing some of his smaller works, and by religious discourse with his fellow-prisoners as opportunity offered. Before he was set at liberty, he had begun the work which has immortalized his name—“The Pilgrim’s Progress.” This wonderful book has had a circulation second only to that of the Bible.

<sup>1</sup> **Fervid imagination.**—Heated fancy ; the opposite of a cool, sober state of mind.

<sup>2</sup> **Delectable Mountains.**—Mountains of Delight. They are mentioned in the “Pilgrim’s Progress.”

<sup>3</sup> **To work miracles.**—Such as changing the puddles along the road into blood. He thought if a man had the right kind of faith he would be able to do such marvels.

<sup>4</sup> **The unpardonable sin.**—Sin against the Holy Ghost.

<sup>5</sup> **Reprobation.**—Eternal rejection from the presence of God.

<sup>6</sup> **Baptist community.**—A religious body or sect, called Baptists. They do not think it right to baptize young children.

<sup>7</sup> **Nonconformity.**—Not conforming or agreeing to the form of worship of the National Church. Such persons are called Nonconformists or Dissenters.



**"THE PILGRIM'S PROGRESS."**

THIS famous book is an allegory,<sup>1</sup> in which is traced the course of a Christian on his heavenward journey, a vivid account of his difficulties, temptations, dangers, consolations on the way, and a glowing description of ultimate triumph.<sup>2</sup>

"The characteristic peculiarity<sup>3</sup> of the 'Pilgrim's Progress,'" writes Lord Macaulay, "is that it is the only work of its kind which possesses a strong human interest. Other allegories only amuse the fancy. The allegory of Bunyan has been read by many thousands with tears. In the pleasure derived from other allegories the feelings have no part whatever. It is not so with the 'Pilgrim's Progress.' That wonderful book, while it obtains admiration from the most fastidious critics,<sup>4</sup> is loved by those who are too simple to admire it.

"Every reader knows the straight and narrow path as well as he knows a road in which he has gone backward and forward a hundred times. This is the highest miracle of genius—that things which are not should be as though they were; that the imaginations of one mind should become the personal recollections of another. And this miracle Bunyan has wrought. There is no ascent, no declivity, no resting-place, no turnstile, with which we are not perfectly acquainted. The wicket-gate, and the desolate swamp which separates it from the City of Destruction<sup>5</sup>; the long line of road, as straight as a rule can make it; the Interpreter's house and all its fair shows—the prisoner in the iron cage, the palace, at the doors of which armed men kept guard; and on the battlements of which walked persons clothed in gold; the cross and the sepulchre; the steep hill and the pleasant arbour; the stately front of the House Beautiful by the wayside, the chained lions crouching in the porch; the low green valley of Humiliation, rich with grass;

covered with flocks,—all are as well known to us as the sights of our own streets.

“Then we come to the narrow place where Apollyon strode right across the whole breadth of the way to stop the journey of Christian, and where afterwards the pillar was set up to testify how bravely the pilgrim had fought the good fight. As we advance, the valley becomes deeper and deeper. The shade of the precipice on both sides falls blacker and blacker. The clouds gather overhead. Doleful voices, the clanking of chains, and the rushing of many feet to and fro, are heard through the darkness. The way, hardly discernible in gloom, runs close by the mouth of the burning pit, which sends forth its flames, its noisome smoke, and its hideous shapes to terrify the adventurer. Thence he goes on amidst the mazes and pitfalls, with the mangled bodies of those who have perished lying in the ditch by his side. At the end of the long dark valley (which he calls the Valley of the Shadow of Death) he passes the dens in which the old giants dwelt amidst the bones of those whom they had slain.

“Then the road passes straight on through a waste moor, till at length the towers of a distant city appear before the traveller ; and soon he is in the midst of the innumerable multitudes of Vanity Fair. There are the jugglers and the apes, the shops and the puppet-shows. There are Italian Row, and French Row, and Spanish Row, and British Row, with their crowds of buyers, sellers, and loungers, jabbering all the languages of the earth.

“Thence we go on by the little hill of the silver mine, and through the meadow of lilies, along the bank of that pleasant river which is bordered on both sides by fruit trees. On the left branches off the path leading to Doubting Castle, the courtyard of which is paved with the skulls of pilgrims ; and right onward are the sheepfolds and orchards of the Delectable Mountains.<sup>6</sup>

“From the Delectable Mountains the way lies through the

fogs and briers of the Enchanted Ground, with here and there a bed of soft cushions spread under a green arbour; and beyond is the land of Beulah, where the flowers, the grapes, and songs of the birds never cease, and where the sun shines night and day. Thence are plainly seen the golden pavements and streets of pearl, on the other side of that black and cold river<sup>7</sup> over which there is no bridge.

"The style of Bunyan is delightful to every reader, and invaluable<sup>8</sup> as a study to every person who wishes to obtain a wide command over the English language. The vocabulary is the vocabulary of the common people. There is not an expression, if we except a few technical terms<sup>9</sup> of theology, which would puzzle the rudest peasant. We have observed several pages which do not contain a single word of more than two syllables. Yet no writer has said more exactly what he meant to say. . . . For every purpose of the poet, the orator, and the divine, this homely dialect, this dialect of plain working men, was perfectly sufficient. There is no book in our literature on which we would so readily stake the fame of the old unpolluted<sup>10</sup> English language—no book which shows so well how rich that language is in its own proper wealth, and how little it has been improved by all that it has borrowed."

<sup>1</sup> **An allegory.**—A fictitious story having an inner meaning.

<sup>2</sup> **Ultimate triumph.**—Victory in the end [*L. ultimus*, last].

<sup>3</sup> **Characteristic peculiarity.**—That feature which gives it a character of its own.

<sup>4</sup> **Fastidious critics.**—Judges who are over-nice or difficult to please.

<sup>5</sup> **City of Destruction.**—The city that Christian started from.

<sup>6</sup> **Delectable Mountains.**—Mountains of Delight.

<sup>7</sup> **Cold river.**—This represents death. It is said to be a river without a bridge,

because all must pass through the waters of death.

<sup>8</sup> **Invaluable.**—Priceless. *In* means not, and so *invaluable* seems to mean *not valuable*. But the truth is, a thing is "invaluable" when it is too precious to have a value or price set upon it.

<sup>9</sup> **Technical terms** are those used by persons versed in any art or science. **Theology** treats of the nature of God and His relation to man. "Technical terms of theology" are such words as justification, sanctification, Trinity, etc.

<sup>10</sup> **Unpolluted English language.**—Words of native origin and growth un-mixed with foreign words.

## VANITY FAIR.

Now as Christian went on his way, he came to a little ascent which was cast up on purpose that pilgrims might see before them : up there, therefore, Christian went, and looking forward he saw Faithful before him upon his journey. Then said Christian aloud, " Ho, ho ! so-ho ! stay, and I will be your companion."

Then I saw in my dream they went very lovingly on together, and had sweet discourse of all things that had happened to them in their pilgrimage. When they were got out of the wilderness, they presently saw a town before them, and the name of that town is Vanity,<sup>1</sup> and at the town there is a fair kept called Vanity Fair. It is kept all the year long.

Now these pilgrims must needs go through this fair. Well, so they did : but behold, even as they entered into the fair all the people in the fair were moved, and the town itself in a hubbub about them. At last things came to such a stir in the fair, that all order was confounded.

Now was word presently brought to the great one of the fair, who quickly came down, and deputed some of his trusty friends to examine these men. They, not believing them to be any other than Bedlams and mad, took them and beat them, and besmeared them with dirt, and then put them into the cage, that they might be made a spectacle to all men of the fair. There, therefore, they lay for some time, and were made the object of any man's sport, or malice, or revenge ; the great one of the fair laughing still at all that befell them.

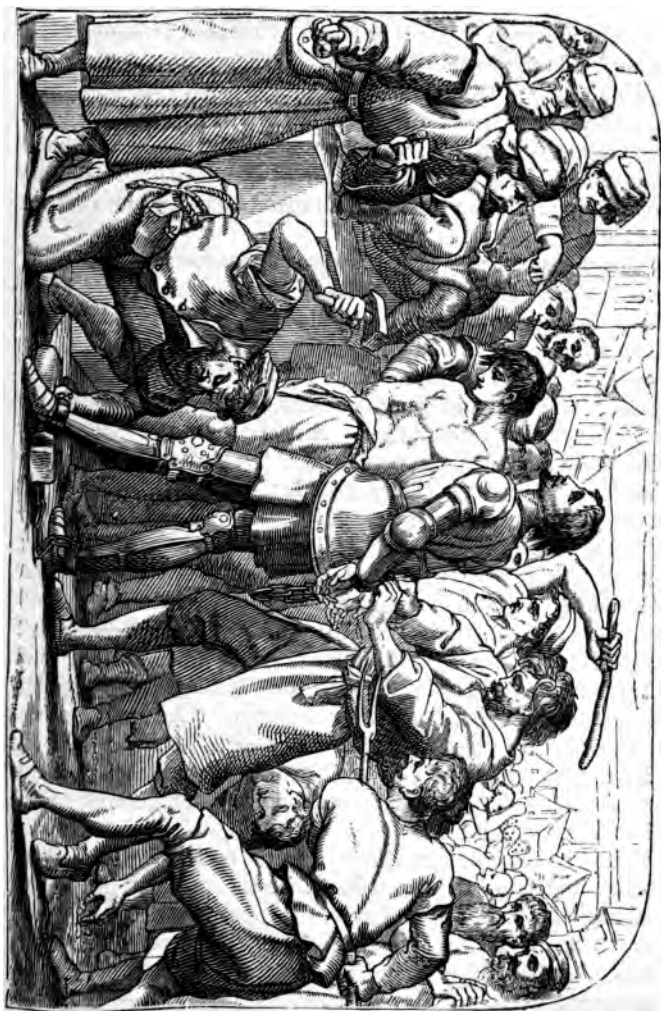
But the men being patient, and " not rendering railing for railing, but contrariwise blessing," and giving good words for bad and kindness for injuries done, some men in the fair, that were more observing and less prejudiced than the rest, began to check and blame the baser sort for their continual

abuses. They, therefore, in angry manner let fly at them again, counting them as bad as the men in the cage, and telling them that they seemed confederates, and should be made partakers of their misfortunes. The others replied that, for aught they could see, the men were quiet and sober, and intended nobody any harm ; and that there were many that traded in their fair that were more worthy to be put into the cage, yea, and pillory<sup>2</sup> too, than were the men that they had abused. Thus, after divers words had passed on both sides (the men behaving themselves all the while very wisely and soberly before them), they fell to some blows, and did harm one to another.

Then were these two poor men brought before their examiners again, and there charged as being guilty of the late hubbub that had been in the fair. So they beat them pitifully, and hanged irons upon them, and led them in chains up and down the fair, for an example and terror to others, lest any should speak in their behalf or join themselves unto them. But Christian and Faithful behaved themselves yet more wisely, and received the ignominy and shame that was cast upon them with so much meekness and patience, that it won to their side (though but few in comparison of the rest) several of the men in the fair. This put their persecutors into yet a greater rage, insomuch that they concluded the death of these men.

Then, a convenient time being appointed, they brought them forth to their trial, in order to their condemnation. When the time was come, they were brought before their enemies and arraigned.

The judge's name was Lord Hate-good ; their indictment was one and the same in substance, though somewhat varying in form ; the contents whereof were these : "That they were enemies to, and disturbers of the trade ; that they had made commotions and divisions in the town, and had won a party to their own most dangerous opinions, in contempt of the law of their prince."



Faithful's case came on first. Witnesses having been called, and the prisoner heard in his defence, the judge thus summed up: "Gentlemen of the jury, you see this man about whom so great an uproar has been made in this town; you have also heard what these worthy gentlemen have witnessed against him; also you have heard his reply and confession: it lieth now in your breasts to hang him or save his life."

Then went the jury out, whose names were Mr. Blind-man, Mr. No-good, Mr. Malice, Mr. Love-lust, Mr. Live-loose, Mr. Heady, Mr. High-mind, Mr. Enmity, Mr. Liar, Mr. Cruelty, Mr. Hate-light, and Mr. Implacable, who every one gave in his private verdict against him among themselves, and afterwards unanimously concluded to bring him in guilty before the judge. And first among themselves, Mr. Blind-man, the foreman, said, "I see clearly that this man is a heretic." Then said Mr. No-good, "Away with such a fellow from the earth!" "Ay," said Mr. Malice, "for I hate the very look of him." Then said Mr. Love-lust, "I could never endure him." "Nor I," said Mr. Live-loose, "for he would always be condemning my way." "Hang him, hang him," said Mr. Heady. "A sorry scrub," said Mr. High-mind. "My heart riseth against him," said Mr. Enmity. "He is a rogue," said Mr. Liar. "Hanging is too good for him," said Mr. Cruelty. "Let us despatch him out of the way," said Mr. Hate-light. Then said Mr. Implacable, "Might I have all the world given me, I could not be reconciled to him; therefore let us forthwith bring him in guilty of death."

And so they did: therefore he was presently condemned to be had from the place where he was to the place from whence he came, and there to be put to the most cruel death that could be invented. They therefore brought him out to do with him according to this law; and first they scourged him, then they buffeted him, then they lanced his flesh with knives; after that they stoned him with stones,

then pricked him with their swords, and, last of all, they burned him to ashes at the stake. Thus came Faithful to his end.

But He who overrules all things, having the power of their rage in His own hand, so wrought it about that Christian for that time escaped them, and went his way.—  
BUNYAN'S *Pilgrim's Progress*.

<sup>1</sup> **Vanity.**—Emptiness; so called because all that the town of Vanity contains is unable to give full satisfaction. Its pleasures are like empty shells, fair to outward view, but void of substantial good.

<sup>2</sup> **Pillory.**—A wooden frame provided with holes for the head and hands. Criminals used to be placed in the pillory, and left there a certain time as a butt of ridicule to every one who came.

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### THE BATTLE OF AGINCOURT.

HENRY V. soon after his accession (A.D. 1413) crossed over to France with an army of 30,000 men, to make good his claim to the French crown. He landed at Harfleur, in Normandy, and took the town after a siege of five weeks. Meanwhile thousands perished of disease, and when the gates of Harfleur were thrown open to the besieging army only 10,000 men remained to take possession. The king, accordingly, thought it necessary to return to England, and for this purpose set out for Calais. But before he could arrive there, he was intercepted by an army of 50,000 Frenchmen, posted near the village of Agincourt. It was the eve of St. Crispin's Day when Henry halted his troops, and made preparations for battle with the same skill that Edward had displayed at Crecy and the Black Prince at Poitiers.

Henry rose at the earliest dawn, and immediately heard mass. Being equipped for action, and wearing a helmet adorned by a jewelled crown, he mounted a small grey horse, and commanding the trumpets not to sound, ordered his men out of their quarters, and drew them up in order of battle. The archers were placed between the wings in the



form of a wedge, their flanks being protected by hedges and coppices. To foil the attack of the French cavalry, Henry had directed each archer to cut down a stake six feet long and sharpen it at both ends, so that when driven into the ground in a slanting direction it might pierce the breasts of the charging horses.

The English were the first to commence the attack. Henry having given the order, "Banners advance," the soldiers immediately prostrated themselves on the ground and each of them put a small piece of earth into his mouth as a sign of his desire to receive the sacrament in preparation for death. The French cavalry then advanced, but were received with such a galling shower of shafts from English bows that their horses madly plunged, and even rolled with their riders on the ground, whilst others fell back in terror and threw the foremost ranks into utter confusion. Henry gave them no time to rally. Whilst they were floundering about in a newly-ploughed field, soaked with recent rain, the English yeomen, rushing from behind their stakes and slinging their bows over their shoulders, attacked the disordered mass of men and horses with their bill-hooks, battle-axes, or iron maces. "It seemed," says the chronicler "as though they were hammering upon anvils."

The van of the French army was thus utterly routed; but there were still two lines in the rear to be overcome. On reaching the second line the English met for a time with a spirited opposition. Certain of the French knights had sworn to take the life of Henry, and they did their best to keep their oath. One of them cleft in two his golden crown, and almost brought him to the ground. At length, after a fierce struggle, the confusion which had broken up the first line extended to the second also, the vast numbers of the enemy only increasing the disorder and tending to their destruction. The ground which the French army occupied was so soft that their men-at-arms, encased in heavy armour, could in many places scarcely move without sinking knee-deep; and

their ranks were so huddled together that they could hardly find room to couch their lances. The third line, seeing the confusion, did not wait to be attacked.

The English archers, to whose bravery and steadiness the victory was chiefly due, wore but little armour; they were habited in leathern jerkins, and had their hose loose, with hatchets or bill-hooks hanging from their girdles; many were barefooted and without hats, whilst others had caps of thick leather crossed with iron.

The battle lasted about three hours. The slaughter on the part of the French was appalling, and cannot be more forcibly described than in the words of one of the chroniclers who witnessed it: "When some of the enemy's van were slain, those behind pressed over their bodies, so that the living fell over the dead, and others again falling on them they were immediately put to death; and in three places, near Henry's banners, so large was the pile of corpses, and of those who were thrown upon them, that the English stood on the heaps, which exceeded a man's height, and butchered their adversaries below with their swords and axes."

Rejoicing in his victory, Henry went on to Calais, and thence to Dover. The citizens of Dover, mad with joy, rushed into the wayes to meet him, and the conqueror was carried in their arms from the vessel to the beach; the road to London presented the spectacle of one long triumphal procession. The lords and commons, the clergy, the mayor, aldermen, and citizens conducted him into the capital; wine flowed from the fountains; money was thrown from the windows of the rich; every house was gay with banners; bands of children tastefully arrayed sang the praises of the conqueror, and every voice in the crowded streets raised a joyous cheer.

Henry attributed his wonderful success to Heaven, whose instrument he regarded himself to punish the crimes in France. "Never," said he to the Duke of Orleans, "was

greater disorganization or licentiousness, or greater sins or worse vices than reign in France now. It is pitiful even to hear the story of them, and a horror for the listeners. No wonder if God is angry with France ! ”

### MORNING OF THE BATTLE OF AGINCOURT.

SCENE — *The English Camp. Present, the Dukes of GLOUCESTER, BEDFORD, EXETER, SALISBURY, and WESTMORELAND.*

*West.* Of fighting men they have full threescore thousand.

*Exe.* There's five to one ; besides, they are all fresh.

*Sal.* God's arm strike with us ! 'tis a fearful odds.

God be wi' you, princes all ; I'll to my charge :

If we no more meet, till we meet in heaven,

Then, joyfully,—my noble lord of Bedford,—

My dear lord Gloucester,—and my good lord Exeter,

And my kind kinsman,—warriors all, adieu !

*Bed.* Farewell, good Salisbury ; and good luck go with thee !

*Exe.* Farewell, kind lord, fight valiantly to-day ;

And yet I do thee wrong to mind thee of it,

For thou art fram'd of the firm truth of valour.

[*Exit SALISBURY.*]

*Bed.* He is as full of valour as of kindness ;  
Princely in both.

*West.*

Oh that we now had here

[*Enter KING HENRY*]

But one ten thousand of those men in England

That do no work to-day !

*K. Henry.*

What's he that wishes so ?

My cousin Westmoreland ?—No, my fair cousin :

If we are marked to die, we are enough

To do our country loss ; and if to live,

The fewer men, the greater share of honour.

Oh, do not wish one more :

Rather proclaim it, Westmoreland, through my host,

That he which hath no stomach to this fight,

Let him depart ; his passport<sup>1</sup> shall be made,

And crowns for convoy<sup>2</sup> put into his purse :

We would not die in that man's company

That fears his fellowship to die with us.

This day is call'd—the feast of Crispian :  
 He that outlives this day, and comes safe home,  
 Will stand a tip-toe when this day is nam'd,  
 And rouse him at the name of Crispian.  
 He that shall live this day and see old age,  
 Will yearly on the vigil<sup>3</sup> feast his neighbours,  
 And say—To-morrow is Saint Crispian :  
 Then he will strip his sleeve, and show his scars,  
 And say—These wounds I had on Crispin's day.

Old men forget ; yet all shall be forgot,  
 But he'll remember with advantages  
 What feats he did that day. Then shall our names,  
 Familiar in their mouths as household words,—  
 Harry the king, Bedford, and Exeter,  
 Warwick and Talbot, Salisbury and Gloucester,—  
 Be in their flowing cups freshly remembered.  
 This story shall the good man teach his son ;  
 And Crispin Crispian shall ne'er go by,  
 From this day to the ending of the world,  
 But we in it shall be rememberèd ;  
 We few, we happy few, we band of brothers ;  
 For he to-day that sheds his blood with me,  
 Shall be my brother ; be he ne'er so vile,  
 This day shall gentle<sup>4</sup> his condition :  
 And gentlemen in England, now a-bed,  
 Shall think themselves accurs'd they were not here ;  
 And hold their manhoods cheap, while any speaks  
 That fought with us upon Saint Crispin's day.

SHAKSPEARE.

<sup>1</sup> **His passport.**—A written order for the bearer to *pass*.

<sup>2</sup> **For convoy.**—For the expenses of the journey.

<sup>3</sup> **The vigil.**—The night before the feast.

<sup>4</sup> **Shall gentle, etc.**—Shall give him the rank of a gentleman.

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## JOAN OF ARC.

THE great victory of Henry V. at Agincourt (A.D. 1415) was followed in the course of two years by a treaty of peace, by which he was to marry the Princess Catherine of France and become king on the death of her father. Henry was

married to the French princess, but he died before the throne of France was vacant. He left, however, a young son, Henry VI., as his heir.

As may be supposed, the Dauphin<sup>1</sup> of France did not tamely surrender his right to the crown on his father's death. The English, however, continued to triumph in France for some years. The Dauphin, who had assumed, on his father's death, the title of Charles VII., could at last only reckon as his own a few provinces between the Loire and the Garonne; and even these he knew would be lost, if the city of Orleans should cease to belong to him.

This city was hard pressed by the English (A.D. 1428), and Charles was about to give up his cause in despair, when the tide of fortune was completely changed by the heroism of a maid named *Joan of Arc*. She was a servant in a small country inn in France, where she had often listened to the reports of travellers, who deplored the wretched condition of their country, then lying helpless at the feet of foreigners. As Joan meditated on the misfortunes of Charles, her rightful king, she seemed to see visions in the air, and to hear imaginary voices from heaven bidding her deliver her country, and lead her true king to Rheims, the city where the French kings had always been anointed and crowned.

Being convinced that she was called by God to this extraordinary mission, the simple village maiden eagerly sought an interview with the king, which was at length granted. It is pretended that Joan, immediately on her admission, knew the king, though she had never seen him before, and though he purposely kept himself in the crowd of courtiers, and laid aside everything in his dress and apparel which might distinguish him. She offered to him, in the name of the Creator, to raise the siege<sup>2</sup> of Orleans, and conduct him to Rheims, there to be crowned and anointed. As the instrument of her future victories, she demanded a particular sword, and though she had never seen it except in her visions, she

minutely described it, and also the place where it had long lain neglected.

Charles was induced by her earnestness, and the apparent proofs of her mission, to accept her services. He put under her command a troop of soldiers for the relief of Orleans, then on the point of surrendering for want of provisions. She rode at the head of her little band in gleaming white armour upon a snow-white steed. A banner of white satin, adorned with lilies of gold and a picture of the Saviour, was borne before her. The news of this heaven-sent deliverer spread fast and far. The hopes of the nation revived; men flocked from all parts to follow the standard of the holy maid.

Her first exploit was to carry provisions to the starving inhabitants of Orleans. When she approached the city, the garrison made a vigorous sally,<sup>3</sup> shouting, "The maid! the maid is come!" In that superstitious<sup>4</sup> age, the presence of this feeble woman—sent as her friends believed by Heaven, and aided as her enemies feared by the powers of hell,—was sufficient to inspire her countrymen with fresh courage, and her foes with dread and dismay. Joan's soldiers and her convoy of provisions got into the town a little after night-fall. The starving people received her as an angel from heaven. In nine days the English retired from the walls of a city protected, as they believed, by a witch and sorceress. This great achievement obtained for the heroic girl the title of the "Maid of Orleans."

Success still attended the French arms; and within two months Joan witnessed the coronation of Charles in the ancient church of Rheims. During the ceremony the maid, with her sacred banner unfurled, stood by the king's side; as soon as it was over, she threw herself on her knees, embraced his feet, declared her mission accomplished, and with tears solicited his leave to return to her former station.

Unfortunately for her, the king would not listen to this request. In the following year she was taken prisoner by

the English, and tried on a charge of witchcraft.<sup>5</sup> Her fate is a foul blot upon the English name. She was burned as sorceress in the market-place of Rouen, where her statue now stands. The English power in France continued rapidly to decline, and in the course of a few years Calais was all that remained.

<sup>1</sup> **The Dauphin.**—The heir to the French crown, like our Prince of Wales to the English.

<sup>2</sup> **To raise the siege.**—To make the besiegers give up the siege.

<sup>3</sup> **Bally.**—An onset made by the besieged upon the besiegers.

<sup>4</sup> **Superstitious age.**—A time when people were very credulous, or easily im-

posed upon in matters of religious belief a time when they believed in witches and sorcerers having supernatural power allies of the devil.

<sup>5</sup> **Witchcraft.**—The practice of sorcery, or the exercise of wicked power derived from the Evil One.

<sup>6</sup> **Calais.**—This town also was lost the reign of Queen Mary (1558).

## RELIEF OF ORLEANS.

LIKE two conflicting clouds,  
Pregnant with thunder, moved the hostile hosts.  
Then man met man, then on the batter'd shield  
Rung the loud lance, and through the darken'd sky  
Fast fell the arrowy storm.

The clang of arms  
Reaches the walls of Orleans. For the war  
Prepared, and confident of victory,  
Forth speed the troops.<sup>2</sup> Not when, afar exhaled,  
The hungry raven snuffs the steam of blood  
That from some carcass-cover'd field of fame  
Taints the pure air, flies he more eagerly  
To feed upon the slain, than the Orleanites,  
Impatient now, for many an ill endured  
In the long siege, to wreak upon their foes  
Due vengeance. Then more fearful grew the fray;  
The swords that late flash'd to the evening sun  
Now quenched in blood their radiance.

O'er the host  
Howl'd a deep wind that, ominous<sup>3</sup> of storms,  
Roll'd on the lurid clouds. The blacken'd night  
Frown'd, and the thunder from the troubled sky  
Roar'd hollow. Javelins<sup>4</sup> clash'd and bucklers rang;  
Shield press'd on shield; loud on the helmet jarr'd  
The ponderous battle-axe; the frequent groan

Of death commingling with the storm was heard,  
And the shrill shriek of fear. Then echoed loud  
Around the sacred banner<sup>5</sup> of the Maid  
The cry of conquest.

Swift as the affrighted herd  
Scud o'er the plain, when rattling thunder-cracks  
Upon the bolted lightning<sup>6</sup> follow close,  
The English hasten to their sheltering forts,  
Even there of safety doubtful, still appall'd  
And trembling, as the pilgrim who by night  
On his way wilder'd, to the wolf's deep howl  
Hears the wood echo, when from close pursuit  
Escaped, the topmost branch of some tall tree  
He grasps close clinging, still of the wild beast  
Fearful, his teeth ajar, and the cold sweat stands  
Upon his clammy limbs.

Clamours of joy  
Echo along the streets of Orleans, wont  
Long time to hear the infant's feeble cry,  
The mother's frantic shriek, or the dread sound  
When from the cannon burst its stores of death.  
Far flames the fire of joy on ruin'd piles  
And high heap'd carcasses, whence scared away  
From his abhorred meal, on clattering wing  
Rose the night-raven slow.

In the English forts  
Sad was the scene. There all the livelong night  
Steal in the straggling fugitives ; as when  
Past is the storm, and o'er the azure sky  
Serenely shines the sun, with every breeze  
The waving branches drop their gather'd rain,  
Renewing the remembrance of the storm.

SOUTHEY.

<sup>1</sup> **The hostile hosts.**—The English outside the walls of Orleans, and the French army under Joan of Arc, marching to the relief of the city.

<sup>2</sup> **The troops.**—The French soldiers within the city.

<sup>3</sup> **Ominous.**—Foreboding, giving threatening signs.

<sup>4</sup> **Javelins.**—Spears ; **Bucklers,** shields.

<sup>5</sup> **Sacred banner.**—A flag of white satin, adorned with lilies of gold, and a picture of the Saviour.

<sup>6</sup> **Bolted lightning.**—Destructive lightning, commonly called a thunder-bolt.



### EXPANSION BY HEAT.

It has not yet been ascertained with any certainty *what heat is*,—whether it is a *substance* in itself, or only a *condition or state* of matter. If it is itself a substance it has *no weight*,—for a piece of iron weighs the same whether hot or cold,—and this, among other reasons, has led to the more general adoption of the second theory.

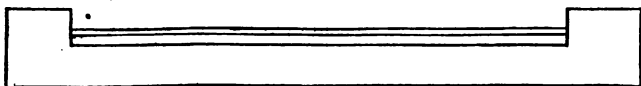
*Hot* and *cold* are what are called *relative* terms : that is, the same body, at the same moment, may feel hot to one person and cold to another, or even hot to one hand and cold to the other hand of the same person. Get a basin of cold water, and another of hot water. Place one hand in each basin, keeping them there till one hand is thoroughly warmed and the other cooled. Now quickly mix the contents of the two basins, and plunge both your hands into the mixture ; and you will find that this mixture feels warm to the cold hand, but quite cold to the warm hand. This shows that “hot” and “cold” only describe certain sensations in the body, and that what we at one time call hot we should at another call cold.

In truth, “cold” is only *the absence or withdrawal of heat*, and therefore, properly speaking, there is no such thing as “cold,” but only *various degrees of heat* ; indeed, it is impossible, so far as we can tell, to deprive a body of *all* its heat.

Heat has one remarkable effect upon almost all bodies : it causes them to *expand*. Generally speaking, liquids expand more easily than solids, and gases more easily than liquids ; or, in other words, the same amount of heat that causes a solid to expand *a little*, would cause a liquid to expand *more*, and a gas *considerably more*.

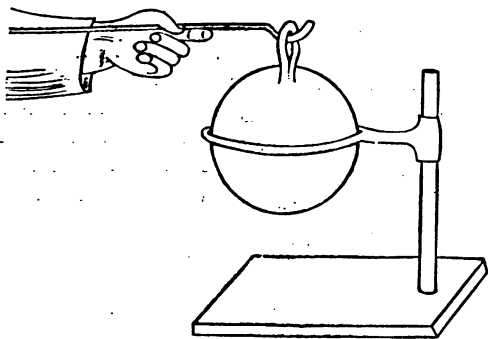
We will give a few simple experiments to prove this law of heat.

**EXPANSION OF SOLIDS.**—Take a brass stair-rod, and measure it carefully. The best way, perhaps, to do this will be to cut out of a narrow sheet of tin a notch just (and only just) large enough for the rod to slip through, thus,—



Now heat the rod to a red heat, and, taking it with a pair of tongs, attempt to pass it through the notch in the tin as before. You will find it has become too long.

Take a metallic ball and ring,—the ball being just (and only just) of a size to slip through the ring. Upon the ball being heated it will no longer pass through, but will be sup-



ported on the ring, as in the figure. Allow it to remain there a short time, and it will gradually impart some of its heat to the ring (which will thereupon expand a little), and will lose some in the surrounding air, until the ball and ring are both of the same temperature. Then the ball slips through the ring as at first.

**EXPANSION OF LIQUIDS.**—Fill a flask *to the brim* with water, and then insert a cork through which a glass tube has been passed. The water will then stand in the tube

perhaps an inch or two above the cork. Apply heat, and the water will rise in the tube rapidly, and will presently begin to trickle out at the top. If the tube be a very thin one, merely holding the flask in your warm hands would be sufficient to make the water rise rapidly. The water might, if preferred, be coloured, in which case its expansion would be more easily watched.

**EXPANSION OF GASES.**—Partly fill a bladder with air, tie it up firmly, then heat it before the fire, and the air will expand and distend the bladder. This explains why you cannot blow up a football properly with your breath; for when you have, as you think, blown it quite full and tight, you forget that your breath is *warm*, that as it cools it will lessen in bulk, and that then your football will no longer be tight.

The *force* of expansion and contraction by heat and cold respectively, is enormous and almost irresistible, and is often applied to useful purposes. The tire of a wheel is fixed on red-hot, and then being plunged into water it cools, and contracts with a force far beyond human strength, so that the wheel is rendered firm and tight in all its parts. Large iron plates are riveted together with red-hot iron rivets, which on cooling bind the plates together with wonderful closeness. The walls of large buildings which had begun to bulge outwards have been straightened by passing iron bars from wall to wall; these were heated, then screwed up tight and allowed to cool. Another set of bars was then treated in the same way, and thus inch by inch the walls were restored to their proper position. For the same reason allowance must often be made for expansion by heat, or serious consequences may follow. An iron bridge seventy yards long would expand and contract more than an inch under the influence of summer heat and winter frost. The iron rails of a railway must be left a little apart, to allow of similar expansion.

The amount of expansion in any case depends upon the

ature of the body. It so happens that all gases expand equally, or nearly so, at the same temperature ; but this is not so with liquids, nor with solids. Each liquid and each solid has its own power of expansion for any given increase of temperature—which is *invariable for that substance*. Thus if a rod of iron a yard long, when brought to a red heat expands in length a quarter of an inch, any iron rod will expand in the same proportion when raised to the same heat ; but a brass rod will expand half as much again.

Use is often made of the different expansibilities of different substances. We will give one example : a clock pendulum beats rapidly or slowly according to its *length* ; so that in summer time or in a warm room a pendulum will expand and beat more slowly than it ought to do, causing the clock to lose time. The simplest way of correcting this fault which has been invented is this : the pendulum is made of steel, with a glass vessel at the bottom containing mercury. Now, when the steel rod expands by heat, the mercury also expands *twelve times as much* in proportion to its length. The steel expands downwards, the mercury upwards ; and thus a compensation is easily brought about by a small quantity of mercury, causing the pendulum to beat regularly.

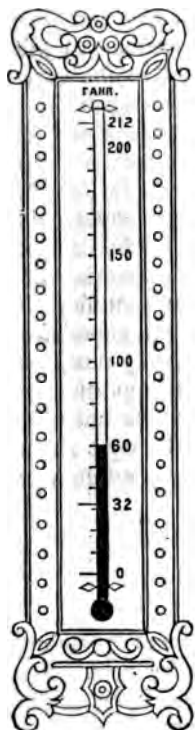
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### THE THERMOMETER.

THE property, which almost all bodies possess, of expanding by heat, affords us a ready means of *measuring* heat. For the gradual expansion or contraction of some body, as the heat increases or decreases, will give us certain indication of the *degree* of that heat at any particular time. The substance most frequently used for this purpose is mercury (quicksilver)—a metal which is liquid at all ordinary temperatures.

This metallic mercury is inserted in a glass tube, having

a very small bore, with a bulb at one end. The tube is only partly filled, so as to leave room for the mercury to rise. The tube is then heated, and as the temperature increases, the mercury will gradually expand, rising higher and higher in the tube till it reaches the top, and begins to flow out. At this moment the glass at the open end is quickly heated by a pipe flame, which softens it like wax, so that the tube can be closed.



We have now obtained a *thermometer* or instrument for measuring heat. The tube, as we said before, should be of uniform bore, so that when the mercury expands or contracts ever so little under the influence of a change of temperature, it will rise or fall quickly and perceptibly in the tube. The next thing is to *graduate* the instrument—that is, to divide the scale into small divisions, called degrees, and to number them. We will now explain how this is done.

It has been found that, if a thermometer be placed in snow or broken ice which is in the process of melting, the height of the mercury is always the same in that thermometer. It is not like a hand — sometimes warmer, sometimes cooler: try the experiment twenty times over, and the height of the mercury will not vary in the slightest degree from a certain point.

Here, then, we have a good starting-point. Scratch a mark on the glass tube where the mercury stands when the thermometer is placed in melting snow or ice, and call this the *Freezing Point*, because it is just the point where water begins to freeze or ice to melt.

It has also been found that, under the same pressure of the atmosphere, pure water always boils at the same temperature. Therefore plunge your thermometer into boiling water, and mark your glass with another scratch where the mercury stands. Call this the *Boiling Point*.

The distance between these two points must be divided into small portions (called *degrees*). There are three common methods of thus dividing it; but the one usually adopted in this country is that first employed by Fahrenheit. He divided the distance between the freezing point and the boiling point into 180 degrees, numbering the freezing point 32 and the boiling point 212. Thus the freezing point of water is known as 32 degrees Fahrenheit,—written briefly thus, 32°F.; and the boiling point of water by the same scale is 212°F.

The remaining parts of the tube, above the boiling point and below the freezing point, are then marked off in degrees of the same length, and are numbered accordingly. The point which is 32° below freezing point is marked 0°, and is called *zero*.

We wonder, now, if any boy or girl who has been reading these lessons, has had the acuteness to think after this fashion:—"The book says that *glass* expands by heat as well as mercury; if so, when heat is applied to the thermometer, the glass bulb and tube ought to expand as well as the mercury inside. Why, then, does the mercury rise in the tube?" The answer to this is that mercury expands eighteen times as much as glass; that is to say, when the glass has expanded by heat, the mercury only spends *one-eighteenth part* of its expansion in filling up the expanded glass, leaving seventeen other parts of expansion to rise in the tube.

You will now, I dare say, begin to see several reasons why mercury is so suitable for thermometers. It is *liquid* at all ordinary temperatures, and therefore a mercurial thermometer can take the convenient form of a bulb and

tube. It does not freeze except at a very low temperature—71 degrees below the freezing point of water; it does not boil except at a considerably high temperature—viz., at 662°F., or 450 degrees above the boiling point of water; consequently it has a *large range* of usefulness. It is colourless in colour, and is therefore easily watched as it rises or falls in the thermometer. And, as you have seen, it expands or contracts very readily under the influence of a change of temperature.

Coloured alcohol is also much used for thermometers. It does not freeze at any known cold, and will therefore be of service to measure low temperatures, especially when mercury is frozen. But, on the other hand, it boils at 172° Fahr., or 40 degrees below the boiling point of water, and then, of course, ceases to be of service.

The following table may prove interesting (the minus sign is used to indicate degrees below zero):—

Greatest cold observed by Arctic explorers .....	—74°	Blood heat .....	
Mercury freezes.....	—39°	Alcohol boils.....	
Mixture of salt and snow...	0°	Water boils.....	
Water freezes.....	32°	Lead melts.....	
Medium temperature of London .....	50°	Mercury boils.....	
Suitable temperature for a sitting-room .....	62°	Red heat, about .....	
		Iron melts, about .....	
		Platinum melts, about .....	

NOTE.—Water is in this table said to boil at 212°. But this is not always the case. The boiling point depends on the pressure of the atmosphere, and this again upon the elevation of the place where water is boiled. At the top of Mont Blanc it will boil at a lower temperature. Travellers who have climbed high mountains have been astonished to find that they cannot boil eggs there. The egg may be placed in water, and the water may boil, but the heat of this boiling water is not sufficient to *cook* the egg.

## TRANSMISSION OF HEAT.

HEAT passes from one body to another, or from one part to another of the same body, in three ways—by conduction, convection, and radiation.

### CONDUCTION.

Heat is *conducted* when it passes through a body, the molecules communicating heat to one another. Different substances have different powers of conducting heat. Liquids and gases conduct heat very slightly, and are therefore known as *bad* conductors.

If you were to place a stove in the roof of a building, it would never warm it well; and yet, why should it not, if the air could conduct heat readily? Again, if you place a tin cup, containing flaming spirit, to float on the top of a vessel of water, it will never make the water boil, and yet it surely would if water were a good conductor of heat. If you fasten a lump of ice at the bottom of a test-tube nearly full of water, and then apply the heat of a spirit lamp to the upper part of the water, you may actually set the water at the top a-boiling, while the ice remains unmelted at the bottom. How could this be if water freely conducted heat?

Of solids, some are bad and some are good conductors. The metals are the best, but they have not all equal powers. Take two spoons—one of silver, the other of German silver,—and place on the extremity of the handle of each a small piece of solid butter. Then balance them on the edge of a cup of hot water—the bowls of the spoons resting on the surface of the liquid. Silver conducts heat about seventeen times as rapidly as German silver: consequently, the butter on the handle of the silver spoon will melt (with the heat conducted from the water) long before the other piece of butter is affected by it.



Stone, wood, cotton, wool, and many other substances are bad conductors. Therefore, a metal coffee-pot is provided with a wooden handle. When you go to a shop to buy a metal teapot, do not be tempted by cheapness to take one which has the handle joined close to the body; look out for one which has pieces of glass, or earthenware, or wood, between the teapot and the handle, to break the conduction of the heat. A laundress uses a square of thick calico or cloth to protect her hand from the hot handle of her iron. The sheep's wool keeps within him the warmth of his body: in summer-time he does not need this non-conductor, therefore it is shorn off, and by next winter is probably woven into cloth or flannel, to serve the same useful purpose on the body of some human being.

The following list of solid substances commences with the best and ends with the worst conductors:—Silver, copper, gold, iron, lead, stones, earths, wood, charcoal, silk, linen, cotton, wool, fur, down.

You now see why wool and furs make such warm clothing. It is not that they have heat in themselves, but simply that, being bad conductors, they *keep in* the warmth of the body. For the same reason you will be able to preserve a lump of ice a long time in summer by wrapping it in flannel, which *keeps out* the heat.

#### CONVECTION.

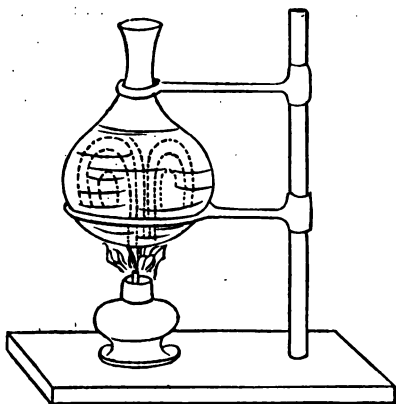
We said that gases and liquids conduct heat very badly: yet they may be rapidly heated. There must, therefore, be some other way of transmitting heat.

Put into a flask of water a little bran, or some oak sawdust. Apply heat, and you will see that the bran or sawdust has a rapid motion—rising in the centre of the flask, and falling down again at the sides (see the dots in the figure). This can only result from the *movement of the water*: in other words, the movement of these particles proves that

the molecules of water are moving in the same direction. Hence we learn that when a liquid is heated at the bottom the heated molecules rise, making room for other cooler molecules to come near the flame to be heated in their turn. Presently the heated molecules, having travelled to the top of the liquid, are themselves driven away downwards by hotter molecules, and thus the heat is *conveyed* by the molecules hither and thither throughout the whole of the liquid. This is called *convection* of heat.

Why do the heated molecules *rise*? The answer is plain: when heated they expand; thus they become lighter, and rise to the surface.

Gases are heated in the same way; for the molecules of a gas are even freer than those of a liquid, and are capable of flowing hither and thither on the very slightest occasion. This is not so with the molecules of a solid, which adhere together more or less firmly, so that force is required to separate them.



#### RADIATION.

A heated body throws out its heat in all directions (like a candle giving light in all directions). This transmission of heat takes place in *straight lines* in every direction,—so that, for instance, if you wish to prevent the radiation of heat from a fire to your face you have nothing to do but place something as a screen in a straight line between your face and the hot fire.

Radiation is not conduction—that is to say, it does not depend upon the surrounding air or other objects for transmission ; for if a heated body be placed under the receiver of an air-pump, and the air be exhausted, radiation will continue as before.

The most remarkable example of radiation of heat is from the sun, which gives out its heat in all directions through space. If a spectator could be stationed on the sun itself he would see our earth as a tiny speck among the other planets and stars. Therefore the **proportion** of the sun's heat which the world receives by radiation is extremely small compared with the great flood of heat which is pouring forth in every direction. Yet the heat we do get is enormous. It has been calculated that if we were to kindle a fire every nine yards all over the earth's surface, and feed each fire with a sack of coal daily, we should only produce an amount of heat equal to that which we daily receive from the sun.

From what has been already said it will be understood that when we speak of a *radiator* we do not mean a medium for heat to pass through (that would be a *conductor*), but the *heated body itself, which gives out heat*. Some substances are good radiators—*i.e.*, they give out their heat freely ; others very slowly. The following list begins with the best radiators, and ends with the worst:—Lampblack, paper, sealing-wax, glass, ice, black-lead, tarnished metals, bright metals.

Hence you see that metal teapots, coffee-pots, urns, and dish-covers should be kept as bright as possible, for then very little heat is lost by radiation.

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### THE BAROMETER.

If you take a wine-glass or tumbler and plunge it into a tub of water, and then raise it gently *with its mouth downwards*,

you will find that as it is raised the water will not sink in the glass to the level of the water in the tub, but will continue to fill the glass so long as its mouth remains under water.

This curious fact was known for a long time before its real cause was discovered. Philosophers used to say that the water filled the glass because nothing else could get in to do so, and because, as they taught, "Nature abhors a vacuum;" by which they meant that it was contrary to nature for a space to remain unoccupied. They explained the working of the pump by the same rule: the air is pumped out, they said, and the water rushes up to prevent the formation of a vacuum.

But when some workmen at Florence were one day fixing a pump to an unusually great depth, they found that they could by no means make the water rise in the pump more than about thirty-two or thirty-three feet. Galileo, one of the greatest philosophers then living, began to see that this curious discovery might lead to important results: evidently here was Nature seemingly permitting a vacuum above thirty-three feet without taking any trouble about it.

But Galileo died without solving the puzzle, and his pupil, Torricelli, continued the inquiry. He soon saw that this column of water, measuring thirty-three feet in length, must have considerable weight, and that *some force must sustain that weight*. What could it be? He then reasoned that if this unknown force could sustain a column of water up to thirty-three feet, and no higher, its *power was limited* to that weight of water. He next conceived the happy idea of trying a column of mercury, which, as it is thirteen-and-a-half times as heavy as water, he calculated could only be sustained (by this unknown force of limited power) to the height of about twenty-nine inches. He therefore took a glass tube about a yard long, closed at one end; and, after filling it with mercury, applied his finger to the open end, and inserted this end in a vessel of mercury. On removing

his finger, what he had expected and calculated took the mercury fell in the tube till it stood still at a height about thirty inches above the mercury in the vessel. This happened in the year 1643.

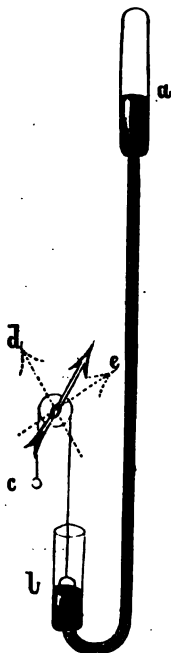


FIG. 1.

This clever man was not long covering what was the force which sustained the mercury in his tube to the height of thirty inches, or the weight of the pump to the height of thirty feet—viz., the downward pressure of the air on the surface of the mercury in the vessel below. Air is a very light substance, but it has weight, and a great quantity of even a light substance weighs very heavy; therefore, as air extends above the earth to the height of at least forty-five miles (as is supposed), its weight must be something considerable.

Torricelli's explanation of this new and strange phenomenon, and people generally so cling to what they have believed a long time, that nearly everybody thought and taught in the old way, Torricelli had no *proof* to offer. Evén Pascal, of Paris, another famous philosopher, took great interest in Torricelli's discovery, tried the same experiment with water and other liquids, and always found that they stood at heights which might be pretty nearly calculated beforehand—the weights of the various liquids being known. And now he, in his turn, had a happy idea. "If this column of mercury or water is really supported by the weight of the air," which always seems to be the measure of the unknown force, is really supported by the weight of the air, as Torricelli thinks, then where the air is lighter

column will be least. On the top of a mountain, where there is less pressure of air, the mercury ought to stand much lower. And if this turns out to be so, I shall have proved Torricelli's theory to be the right one."

He therefore wrote to a friend, asking him to ascend the Puy de Dôme, a mountain of Auvergne, 5000 feet high, and repeat Torricelli's experiment there. His friend did so; and reported that the column of mercury supported in the tube at the top of the mountain was three-and-a-half inches less than at the foot. This was in 1648.

Thus was invented the barometer—an instrument for *measuring the weight* or pressure of the atmosphere. To make a barometer you require a glass tube about a yard long, closed at one end, and a vessel of pure mercury. Put a little mercury into your tube, and heat it well over a spirit-lamp; add a little more warm mercury, and heat again; and thus by degrees fill your tube. All this care is to ensure that the tube is perfectly dry and free from air.

When it is quite full, stop the open end with your finger, invert it, and dip the open end under the surface of the mercury in your vessel. Now remove your finger, and if your mercury is quite pure and dry, and if you have been careful to allow no air to enter, the mercury will stand in the tube to such a height as will be *exactly* equal in weight to the pressure of the atmosphere at that time and place.

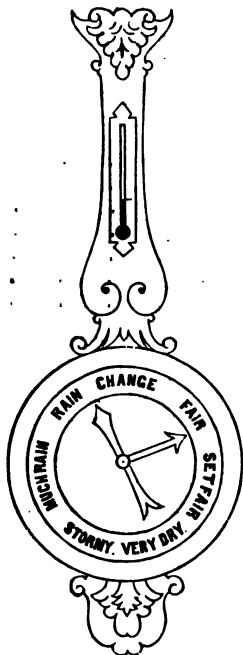


FIG. 2.

When a barometer is used as a weather-glass, it is provided with a face like that of a clock, and with a hand which turns to the right or left as the mercury rises or falls, and points to a number which corresponds to the height of the mercury.

The height of this column of mercury will vary with the state of the atmosphere. In England it will very rarely fall below twenty-eight inches, or rise above thirty-one inches. The following table shows what kind of weather may generally be expected according to the height of the barometer :—

31 inches	.	.	.	.	Very dry.
30½ "	.	.	.	.	Set fair : in winter, continued frost.
30 "	.	.	.	.	Fair : in winter, frosty.
29½ "	.	.	.	.	Changeable.
29 "	.	.	.	.	Rainy.
28½ "	.	.	.	.	Stormy.
28 "	.	.	.	.	Very tempestuous.

It must not be supposed, however, that the weather will of necessity follow the barometer—for that instrument only measures the pressure of the air, not the state of the weather ; but the same causes which render the atmosphere dense or light also generally bring fair or foul weather respectively. And so the chief practical use made of the barometer is to foretell the state of the weather.

In hot weather a sudden fall of the mercury is almost always followed by thunder. In frosty weather a fall presages a thaw, and a rise will most probably be followed by snow.

In general, when the mercury rises or falls, and the consequent sort of weather is a long time in making its appearance, it will most likely continue, when it *does* come, for some length of time ; but if the expected change follows quickly, it may be expected to last for a short time only.

It should not be forgotten that the weight of the air lessens as we ascend a height, so that (as Pascal was the

to discover) the barometer falls as you ascend a mountain. Speaking roughly, at small elevations, for every 100 feet above the level of the sea the barometer will fall one-tenth of an inch. An ascent of one mile in particular height will cause the mercury to fall about six inches. The barometer may therefore be used to measure approximate height of mountains.

Fig. 1 gives you a view of the real barometer. The tube and cup are all in one; the cup you may see a small ball of iron or glass floating,—for either of these is lighter than mercury. To this ball is attached a cord, which passes over a small wheel and terminates in another ball (*c*), which is lighter than the ball you suppose that the barometer in the figure is standing at thirty inches. A change takes place in the atmosphere which would cause the mercury to fall one inch, the mercury at *a* falls, and that at *b* rises, each half an inch, making a net difference of one inch. As the mercury at *b* rises it lifts the ball *c*, and then the weight *c* falls half an inch, drawing the wheel and the tube with it as far as *d*. In like manner a rise of half an inch would bring the tube round to *e*.

The simple machinery in the weather-glass is all hidden, and the instrument which is upon the wall shows you only a face and two hands, one of which moves to the left as the mercury rises or falls (see fig. 2). The second hand is moved by a person's fingers, and is designed to remind one how the barometer stood when it was last consulted. Thus the difference in the position of the two hands shows how the barometer has risen or fallen in a certain time; and this is important to know as the weather to be expected depends much upon the rate at which the change in the barometer occurs.

### VERSES BY A PRINCESS.

UNTHINKING, idle, wild, and young,  
I laugh'd and talk'd, and danced and sung,  
And proud of health, of freedom vain,  
Dream'd not of sorrow, care, or pain,  
Concluding, in those hours of glee,  
That all the world was made for me.

But when the days of trial came,  
When sickness shook this trembling frame,  
When folly's gay pursuits were o'er,  
And I could dance and sing no more,  
It then occurred how sad 'twould be,  
Were this world only made for me.

PRINCESS AMELIA, *d. of George III.*



## THE GATHERING FOR WAR.

[SIR WALTER SCOTT, though chiefly celebrated as a novelist, has also gained fame as a poet. His chief poems are *The Lay of the Last Minstrel*, *Marmion*, and *The Lady of the Lake*. The following stanzas are from the last-named poem, and describe the old Highland method by which a chieftain summons clansmen to war. Sir Roderick Dhu was the chief of the clan that occupied the wild romantic country near Loch Katrine, in the Western Highlands. The signal for gathering for war was a yew cross, the ends of which were charred or stained with blood.]

THEN Roderick, with impatient look,  
From Brian's hand the symbol<sup>1</sup> took :  
"Speed, Malise, speed !" he said, and gave  
The crosslet<sup>2</sup> to his henchman brave.  
"The muster-place be Lanrick mead—  
Instant the time—speed, Malise, speed !"  
Like heath-bird, when the hawks pursue,  
A barge across Loch Katrine flew ;  
High stood the henchman on the prow ;  
So rapidly the bargemen row,  
The bubbles, where they launched their boat,  
Were all unbroken and afloat,  
Dancing in foam and ripple still,  
When it had near'd the mainland hill ;  
And from the silver<sup>3</sup> beach's side  
Still was the prow three fathoms wide,  
When lightly bounded to the land  
The messenger of blood and brand.<sup>4</sup>

Speed, Malise, speed ! the dun deer's hide  
On fleetest foot was never tied.  
Speed, Malise, speed ! such cause of haste  
Thine active sinews never braced.  
Bend 'gainst the steepy hill thy breast,  
Burst down like torrent from its crest ;  
With short and springing footstep pass  
The trembling bog and false morass.  
Across the brook like roebuck bound,  
And thread the brake like questing<sup>5</sup> hound ;  
The crag is high, the scar<sup>6</sup> is deep,  
Yet shrink not from the desperate leap ;  
Parched are thy burning lips and brow,  
Yet by the fountain pause not now ;  
Herald of battle, fate, and fear,  
Stretch onward in thy fleet career !

The wounded hind thou track'st not now,  
Pursuest not maid through greenwood bough,  
Nor pliest thou now thy flying pace  
With rivals in the mountain race ;  
But danger, death, and warrior deed  
Are in thy course,—speed, Malise, speed !  
Fast as the fatal symbol flies,  
In arms the huts and hamlets rise ;  
From winding glen, from upland brown,  
They poured each hardy tenant down.  
Nor slack'd the messenger his pace :  
He show'd the sign, he named the place,  
And, pressing forward like the wind,  
Left clamour and surprise behind.  
The fisherman forsook the strand,  
The swarthy smith took dirk and brand'  
With changed cheer, the mower blithe  
Left in the half-cut swathe the scythe ;  
The herds without a keeper stray'd,  
The plough was in mid-furrow stay'd,  
The falconer toss'd his hawk away,  
The hunter left the stag at bay ;  
Prompt at the signal of alarms,  
Each son of Alpine rush'd to arms ;  
So swept the tumult and affray  
Along the margin of Achray."  
Alas, thou lovely lake ! that e'er  
Thy banks should echo sounds of fear !  
The rocks, the bosky<sup>9</sup> thickets, sleep  
So stilly on thy bosom deep ;  
The lark's blithe carol, from the cloud,  
Seem for the scene too gaily loud.

Speed, Malise, speed !—The lake is past,  
Duncraggan's huts appear at last,  
And peep, like mossgrown rocks, half seen  
Half hidden in the copse so green ;  
There may'st thou rest, thy labour done,  
Their lord shall speed the signal on.  
As stoops the hawk upon his prey,  
The henchman shot him down the way.  
—What woful accents load the gale ?  
The funeral yell, the female wail !  
A gallant hunter's sport is o'er,  
A valiant warrior fights no more.

Who, in the battle or the chase,  
At Roderick's side shall fill his place !  
Within the hall, where torch's ray  
Supplies the excluded beams of day,  
Lies Duncan on his lowly bier,  
And o'er him streams his widow's tear.  
His stripling son stands mournful by,  
His youngest weeps, but knows not why ;  
The village maids and matrons round  
The dismal coronach <sup>10</sup> resound.

See Stumah, who, the bier beside,  
His master's corpse with wonder eyed ;  
Poor Stumah ! whom his least halloo  
Could send like lightning o'er the dew,—  
Bristles his crest, and points his ears,  
As if some stranger step he hears.  
'Tis not a mourner's muffled tread,  
Who comes to sorrow o'er the dead,  
But headlong haste, or deadly fear,  
Urge the precipitate <sup>11</sup> career.  
All stand aghast :—unheeding all,  
The henchman bursts into the hall ;  
Before the dead man's bier he stood ;  
Held forth the cross besmear'd with blood—  
"The muster-place is Lanrick mead—  
Speed forth the signal ! clansmen, speed !" <sup>12</sup>  
Angus, the heir of Duncan's line,  
Sprang forth and seized the fatal sign ;  
In haste the stripling to his side  
His father's dirk and broadsword tied ;  
But when he saw his mother's eye  
Watch him in speechless agony,  
Back to her open'd arms he flew,  
Press'd on her lips a fond adieu.  
"Alas !" she sobb'd,—<sup>13</sup> "and yet, be gone,  
And speed thee forth, like Duncan's son !" <sup>14</sup>  
One look he cast upon the bier,  
Dash'd from his eye the gathering tear,  
Breathed deep to clear his labouring breast,  
And toss'd aloft his bonnet crest ;  
Then like the high-bred colt, when, freed,  
First he essays his fire and speed,  
He vanish'd, and o'er moor and moss  
Sped forward with the fiery cross.

Suspended was the widow's tear,  
 While yet his footsteps she could hear ;  
 And when she mark'd the henchman's eye,  
 Wet with unwonted sympathy,  
 "Kinsman," she said, "his race is run  
 That should have sped thine errand on ;  
 The oak has fall'n,—the sapling bough  
 Is all Duncraggan's shelter now.  
 Yet trust I well, his duty done,  
 The orphan's God will guard my son."

<sup>1</sup> **The symbol.**—The yew-cross, the signal for war.

<sup>2</sup> **Crosslet.**—A little cross ; "let" means little, as *streamlet*, a little stream.

<sup>3</sup> **Silver beach.**—So called from its white sand.

<sup>4</sup> **Blood and brand.**—Fire and sword.

<sup>5</sup> **Questing hound.**—One in search of game.

<sup>6</sup> **The scar.**—A deep crack or cleft.

<sup>7</sup> **Dirk and brand.**—Dagger and sword. A sword is called a brand because it shines like a brand, or burning piece of wood.

<sup>8</sup> **Achray.**—A beautiful lake near Loch Katrine.

<sup>9</sup> **Bosky thickets.**—Woody thickets.

<sup>10</sup> **Coronach.**—Funeral wail.

<sup>11</sup> **Precipitate career.**—Headlong course.

## GILBERT AINSLIE.

[Abridged from a tale entitled *Moss-side*, by PROFESSOR WILSON. The narrative is remarkable for its simplicity of style and diction. It illustrates a leading rule in English composition : Language being the dress in which ideas are clothed, care should be taken that the style of dress is suitable to the persons introduced as speaking and to the nature of the subject treated of.]

GILBERT AINSLIE was a poor man ; and he had been a poor man all the days of his life, which were not few, for his thin hair was now waxing grey. He had been born and bred on the small moorland farm which he now occupied ; and he hoped to die there, as his father and grandfather had done before him, leaving a family just above the more bitter wants of this world. Labour, hard and unremitting, had been his lot in life ; but although sometimes severely tried, he had never repined. With his own hands he had ploughed, sowed and reaped his scanty harvest, assisted, as they grew up, by his sons, who, even in boyhood, were happy to work along with their father in the field.

There is no need to tell the character of the wife of such

a man. Meek and thoughtful, yet gladsome and gay withal, her heaven was in her house; and her gentler and weaker hands helped to bar the door against want. Ten children had been born to them; they had lost three, and their youngest, a girl about nine years of age, had been lying for a week in a fever.

It was now Saturday evening, and the ninth day of the disease. "Do you think the child is dying?" said Gilbert with a calm voice to the surgeon, who, on his wearied horse, had just arrived from another sick-bed, over the misty range of hills, and had been looking steadfastly for some minutes on the little patient. The humane man knew the family well in the midst of whom he was standing, and replied, "While there is life there is hope; but my pretty little Margaret is, I fear, in the last extremity."

There was no loud lamentation at these words—all had before known, though they would not confess it to themselves, what they now were told—but the certainty that was in the words of the skilful man made their hearts beat for a little with quicker throbbings, made their pale faces paler, and brought out from their eyes a greater gush of tears. There were wandering and wavering and dreamy delirious phantasies<sup>1</sup> in the brain of the innocent child; but the few words she indistinctly uttered were affecting, not rending to the heart, for it was plain that she thought herself herding her sheep in the green silent pastures, and sitting wrapped in her plaid upon the lone and sunny side of the hill above her cottage-home. She was too much exhausted to frame a tune; but some of her words seemed to be from favourite old songs; and at last her mother wept, and turned aside her face, when the child, whose blue eyes were shut and her lips almost still, breathed out these lines of the beautiful twenty-third psalm:

"The Lord's my Shepherd, I'll not want;  
He makes me down to lie

In pastures green ; he leadeth me  
The quiet waters by."

The child was now left with none but her mother by the bedside, for it was said to be best so ; and Gilbert and his family sat down round the kitchen fire for a while in silence. In about a quarter of an hour they began to rise calmly, and to go each to his allotted work. One of the daughters went forth with the pail to milk the cow, and another began to set out the table in the middle of the floor for supper, covering it with a white cloth. Gilbert viewed the usual household arrangements with a solemn and untroubled eye ; and there was almost the faint light of a grateful smile on his cheek, as he said to the worthy surgeon, "You will partake of our fare after your day's travel and toil of humanity." In a short silent half-hour the potatoes and oat-cake, butter and milk, were on the board ; and Gilbert, lifting up his toil-hardened hand as a signal for silence, closed his eyes in reverence, and asked a blessing. There was a little stool, on which no one sat, by the old man's side. It had been put there unwittingly,<sup>2</sup> when the other seats were all placed in their usual order ; but the golden head that was wont to rise at that part of the table was now wanting.

Another hour of trial passed, and the child was still stemming the stream for its life. The very dogs knew there was grief in the house, and lay without stirring, as if hiding themselves, below the long table at the window. One sister sat with an unfinished frock on her knees, that she had been sewing for the sick child, and still continued at the hopeless work, she scarcely knew why. "What is that ?" said the old man to his eldest daughter ; "what is that you are laying on the shelf ?" She could scarcely reply that it was a ribbon and an ivory comb that she had bought for little Margaret against the night of the school-party. "The Lord giveth, and the Lord taketh away," said the old man to himself ; "blessed be the name of the Lord."

The outer door gently opened, and he whose presence had in former years brought peace and resignation hither in the hour of trial now stood before them. On the night before the Sabbath, the minister of Auchindown never left his manse,<sup>3</sup> except as now, to visit the sick or dying bed. Scarcely could Gilbert reply to his first question about the child, when the surgeon came from the bedroom and said, "Margaret seems lifted up by God's hand above death and the grave : I think she will recover. She has fallen asleep ; and when she wakes, I hope—I believe—that the danger will be past, and that your child will live."

They were all prepared for death ; but unprepared for life. One wept that had till then locked up all her tears in her heart ; another gave a short palpitating<sup>4</sup> shriek ; and the tender-hearted Isabel, who had nursed the child when it was a baby, fainted away. The clock, for some days, had been prevented from striking the hours ; but the silent fingers pointed to the hour of nine ; and that, in the cottage of Gilbert Ainslie, was the stated hour of family worship. A chapter was read, a prayer said, and a psalm sung with low and suppressed voices.

The child still slept, and its sleep seemed sound and deep. It appeared almost certain that the flower was not to fade. "Children," said Gilbert, "our happiness is in the love we bear to one another ; and our duty is in submitting to and serving God."

There was silence, gladness, and sorrow, and but little sleep in their house between the rising and the setting of the stars, that were now out in thousands, clear, bright, and sparkling over the unclouded sky. When at early dawn little Margaret awoke, an altered creature, pale and languid indeed, but with meaning in her eyes, memory in her mind, affection in her heart, and coolness in her veins—a happy group were watching the first faint smile that broke over her features ; and never did one who stood there forget that Sabbath morning on which she seemed to look round upon

them all with a gaze of fair and sweet bewilderment, like one half conscious of having been rescued from the power of the grave.

\* **Delirious phantasies.**—Such odd fancies and imaginary sights as occur to the mind in a state of delirium, or light-headedness.

\* **Unwittingly.**—Unknowingly.

\* **Manse.**—A Scotch minister's house.

\* **Palpitating shriek.**—A sharp, short cry, breaking out again and again.

### MRS. MALAPROP.

[RICHARD SHERIDAN, born at Dublin, 1751; died in London, 1816. Some of his dramatic works are still very popular, particularly *The Rivals*, *School for Scandal*, and the *Critic*. The following is extracted from *The Rivals*.]

TO THE TEACHER : *Mrs. Malaprop's mistakes are printed in italics, and the correction of them will form a good exercise for the pupils.*

*Mrs. Malaprop.* There, Sir Anthony, there sits the deliberate simpleton who wants to disgrace her family, and lavish herself on a fellow not worth a shilling.

*Lydia.* Madam, I thought you once——

*Mrs. Mal.* You thought, miss! I don't know any business you have to think at all,—thought does not become a young woman. But the point we would request of you is, that you will promise to forget this fellow—to *illiterate* him, I say, quite from your memory.

*Lyd.* Ah, madam! our memories are quite independent of our wills. It is not so easy to forget.

*Mrs. Mal.* But I say it is, miss; there is nothing on earth so easy as to forget, if a person chooses to set about it. I'm sure I have as much forgot your poor dear uncle as if he had never existed—and I thought it my duty so to do; and let me tell you, Lydia, these violent memories don't become a young woman.

*Sir Anthony.* Why, sure she won't pretend to remember what she's ordered not! Ay, this comes of her reading.

*Lyd.* What crime, madam, have I committed, to be treated thus?



*Mrs. Mal.* Now don't attempt to *extirpate* yourself from the matter; you know I have proof *controvertible* of it. But tell me, will you promise to do as you're bid? Will you take a husband of your friends' choosing?

*Lyd.* Madam, I must tell you plainly, that had I no preference for any one else, the choice you have made would be my aversion.

*Mrs. Mal.* What business have you, miss, with preference and aversion? They don't become a young woman; and you ought to know that, as both always wear off, 'tis safest in matrimony to begin with a little aversion. I am sure I hated your poor dear uncle before marriage as if he'd been a blackamoor—and yet, miss, you are sensible what a wife I made!—and when it pleased Heaven to release me from him, 'tis unknown what tears I shed! But suppose we were going to give you another choice, will you promise us to give up this Beverley?

*Lyd.* Could I belie my thoughts so far as to give that promise, my actions would as certainly as far belie my words.

*Mrs. Mal.* Take yourself to your room. You are fit company for nothing but your own ill humours.

*Lyd.* Willingly, ma'am; I cannot change for the worse.

[*Exit.*]

*Mrs. Mal.* There's a little *intricate* hussy for you!

*Sir. Anth.* It is not to be wondered at, ma'am: all this is the natural consequence of teaching girls to read. Had I a thousand daughters, I would as soon have them taught the black art as their alphabet!

*Mrs. Mal.* Nay, nay, Sir Anthony; you are an absolute *misanthropy*.

*Sir Anth.* In my way hither, Mrs. Malaprop, I observed your niece's maid coming forth from a circulating library. She had a book in each hand. They were half-bound volumes, with marble covers. From that moment I guessed how full of duty I should see her mistress!

*Mrs. Mal.* Those are vile places indeed.

*Sir Anth.* Madam, a circulating library in a town is as an evergreen tree of diabolical knowledge. It blossoms through the year! And depend on it, Mrs. Malaprop, that they who are so fond of handling the leaves will long for the fruit at last.

*Mrs. Mal.* Fy, fy, Sir Anthony; you surely speak *laconically*.

*Sir Anth.* Why, Mrs. Malaprop, in moderation now, what would you have a woman know?

*Mrs. Mal.* Observe me, Sir Anthony. I would by no means wish a daughter of mine to be a *progeny* of learning; I don't think so much learning becomes a young woman: for instance, I would never let her meddle with Greek, or Hebrew, or algebra, or such *inflammatory* branches of learning.—But, Sir Anthony, I would send her at nine years old to a boarding school, in order to learn a little ingenuity and artifice. Then, sir, she should have a *super-cilious* knowledge in accounts; and, as she grew up, I would have her instructed in *geometry*, that she might know something of the *contagious* countries; but above all, Sir Anthony, she should be mistress of *orthodoxy*, that she might not misspell and mispronounce words so shamefully as girls usually do: and likewise that she might *reprehend* the true meaning of what she is saying. This, Sir Anthony, is what I would have a woman know; and I don't think there is a *superstitious* article in it.

*Sir Anth.* Well, well, Mrs. Malaprop, I will dispute the point no further with you. But to the more important point in debate: you say you have no objection to my proposal?

*Mrs. Mal.* None, I assure you. I will prepare Lydia to receive your son's *invocations*; and I hope you will represent her to your son as an object not altogether *illegible*.

*Sir Anth.* Madam, I will handle the subject prudently; and let me beg you, Mrs. Malaprop, to enforce this matter

roundly to the girl. Take my advice—keep a tight hand; if she rejects the proposal, clap her under lock and key; and if you were just to let the servants forget to bring her dinner for three or four days, you can't conceive how she'd come round.

*Mrs. Mal.* You are not ignorant, I *conceive*, that this giddy girl has somehow contrived to fix her affections on a beggarly, strolling, eavesdropping ensign, whom nobody has seen and none of us know anything about.

*Sir Anth.* I have heard of this silly affair before. It must indeed be very distressing to you.

*Mrs. Mal.* Oh! it gives me the *hydrostatics* to such a degree! I thought she had *persisted* from corresponding with him; but behold, this very day, I have *interceded* another letter from the fellow.

*Sir Anth.* If only the girl will do as she is bid, let us bury the past in oblivion.

*Mrs. Mal.* Well, Sir Anthony, since you desire it, we will not *anticipate* the past; our *retrospection* shall be all to the future.

**Illiterate** for *obliterate*, to blot out.

**Extirpate** for *exculpate*, to clear from blame [L. *ex*, out, *culpa*, fault].

**Controvertible** for *incontrovertible*, not able to be controverted or proved false.

**Intricate** for *intriguing*, carrying on secret correspondence.

**Laconically** for *ironically*,—that is, saying one thing and meaning the opposite.

**Progeny** for *prodigy*, something extraordinary.

**Inflammatory**.—It is hard to discover what Mrs. Malaprop meant to say.

**Supercilious** for *superficial*, on the surface, not deep.

**Geometry** for *geography*.

**Contagious** for *contiguous*, adjacent.

**Orthodoxy** for *orthography*, correct spelling.

**Reprehend** for *apprehend*, understand.

**Superstitious** for *superfluous*, more than is wanted.

**Invocations** for *declarations*.

**Illegible** for *ineligible*, unfit to be chosen.

**Conceive** for *perceive*, observe.

**Hydrostatics** for *hysterics*.

**Persisted** for *desisted*, given up.

**Interceded** for *intercepted*, taken while passing from one to the other.

**Anticipate**.—This word refers to the future instead of the "past."

**Retrospection**.—This word refers to the past instead of the "future."

## PUNNING.

"My little dears, who learn to read, pray early learn to shun  
That very silly thing indeed which people call a pun:  
Read Entick's rules, and 'twill be found how simple an offence  
It is, to make the selfsame sound afford a double sense.

"For instance, *ale* may make you *ail*, your *aunt* an *ant* may  
kill,  
You in a *vale* may buy a *veil*, and *Bill* may pay the *bill*;  
Or if to France your bark you steer, at Dover, it may be,  
A *peer* appears upon the *pier*, who, *blind*, still goes to *sea*.

"Thus one might say, when to a treat good friends accept our  
greeting,  
'Tis *meet* that men who *meet* to eat should eat their *meat*  
when meeting;  
Brawn on the board's no *bore* indeed, although from *boar*  
prepared;  
Nor can the *fowl*, on which we feed, *foul* feeding be declared.

"Thus *one* ripe fruit may be a *pear*, and yet be *pared* again,  
And still be *one*, which seemeth rare, until we do explain.  
It therefore should be all your aim to speak with ample care,  
For who, however fond of *game*, would choose to swallow  
*hair*?

"A fat man's *gait* may make us smile, who has no *gate* to close;  
The farmer sitting on his *stile* no *stylish* person knows;  
Perfumers men of *scents* must be; some *Scilly* men are  
bright;  
A *brown* man oft deep *read* we see, a *black* a wicked *wight*.

"Most wealthy men good *manors* have, however vulgar they;  
And actors still the harder slave, the oftener they *play*;  
So poets can't the *baize* obtain, unless their tailors choose;  
While grooms and coachmen, not in vain, each evening seek  
the *Mews*.

"The *dyer* who by *dyeing* lives, a *dire* life maintains;  
The glazier, it is known, receives—his profits from his *panes*:  
By gardeners *thyme* is *tied*, 'tis true, when spring is in its  
prime;  
But *time* or *tide* won't wait for you, if you are *tied* for *time*.

"Then now you see, my little dears, the way to make a pun ;  
A trick which you, through coming years, should sedulously  
shun.

The fault admits of no defence ; for wheresoe'er 'tis found,  
You sacrifice the *sound* for *sense*: the *sense* is never *sound*.

"So let your words, and actions too, one single meaning prove,  
And, just in all you say or do, you'll gain esteem and love:  
In mirth and play no harm you'll know, when duty's task  
is done ;

But parents ne'er should let you go *unpunished* for a *pun* !"

THEODORE HOOK.

### WONDERS OF THE MICROSCOPE.

THE invention of the telescope<sup>1</sup> has revealed to us the vastness of the universe, and taught us to regard our own world as but an exceedingly small part of creation. The truths revealed by the microscope<sup>2</sup> are, however, not less surprising, for it has made known to us that there is not a single corner or cranny of our earth devoid of life. Whilst the telescope has taught us to consider the world, in comparison with the rest of the universe, as a grain of sand on the seashore, the microscope has opened our eyes to see a world of life in every atom. If we had only the telescope to reveal to us the stupendous works of the Creator in the starry heavens, we should have been tempted to think that we who inhabit this little planet of ours are too small and insignificant for God to take us into account. But the microscope has prevented us from falling into this error, by acquainting us with the existencé of myriads of creatures in every part of our world, too minute for the naked eye to see. Thus, whilst the telescope shows us that nothing is too great for God's power, the microscope assures us that nothing is too small for His care.

The microscope has opened up new worlds for human observation. In proportion as this instrument has been

perfected, the horizon of life has been enlarged, and a microscopic world,<sup>3</sup> teeming with life, has been revealed in every spot to which investigation has been able to reach. The polar ices, the elevated regions of the atmosphere, and the gloomy depths of ocean, are peopled with living organisms<sup>4</sup>; and everywhere we have reason to be astonished at the variety of their forms, as well as their innumerable multitude. These minute creatures are found in abundance where, to the unaided eye, nothing animate is visible. Where the rigour of the climate kills the most robust of the vegetable world, where a few scattered animals pick up a precarious subsistence,<sup>5</sup> the tiniest animalcules<sup>6</sup> exist in incredible abundance.

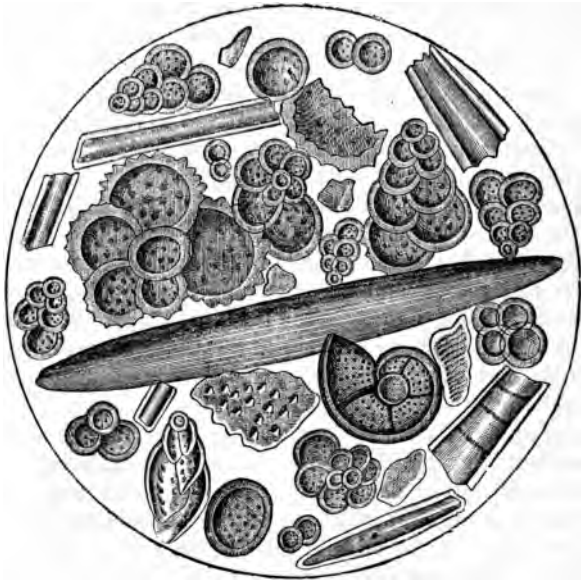
These living specks which swarm in the saline waters of the ocean, not only at its surface, but throughout its greatest depth, abound equally in the muddy waters of our rivers and ponds, and without being aware of it, we daily swallow millions of them in the fluids we drink. If with the aid of the microscope we were to scrutinize everything that a single drop of water contains, there would be seen enough to make many thirsty people loth to drink.

Not only is the water peopled with these minute animalcules, but the air also has its own peculiar denizens.<sup>7</sup> We see enough with the naked eye in the sunbeam that enters a window in our dwelling-houses to make us almost wonder that we are not choked with the dust we are condemned to swallow. But if we could examine the air we breathe with a microscope, we should find that it contains an immense quantity of animalcules, both dead and alive. Sometimes, it is said, they abound to such an extent in the air as to intercept the light and to suffocate travellers.

Water and air are not the only domains of these microscopic creatures. They are met with in the earth in inconceivable numbers. Certain species form in some damp places living beds beneath the soil, which are often several yards in thickness. The creatures themselves are so minute

that 10,000 could be ranged side by side along a line one inch in length. These puny animalcules in many places swarm by myriads of myriads, and form deposits of great size. They are found to compose as much as one-third of the mud exposed by the ebb-tide in certain harbours.

The microscope has also revealed to us many wonders



A LITTLE CHALK POWDER, HIGHLY MAGNIFIED.

respecting the past history of our globe. It shows clearly, for instance, that all our chalk cliffs and all our limestone rocks are mainly composed of the shells that, long ages ago, formed the habitations of tiny molluscs.<sup>8</sup> If a little chalk be reduced to powder and then examined with a microscope, it will be found to consist of minute and various kinds of shells—most of which are so small that it would take two thousand of them placed end to end in a line to

cover an inch. What countless myriads of minute creatures must have filled the seas in the early ages for their shells to form the chalk of which so many of our hills and cliffs are chiefly composed !

A traveller exploring an elevated mountain is sometimes struck by a singular phenomenon<sup>9</sup>—viz., the red colour of the snow. This is due to the presence of microscopic animalcules of a red colour. The same creature seems to produce this red appearance in snow everywhere : on the icy summits of the Alps, and on the snows of the farthest polar regions to which man has penetrated,—for red snow is met with even in these remote parts. Water also at times assumes a blood-red tint, which in every age has startled and alarmed the vulgar. But since the invention of the microscope, it has been ascertained that the redness of the water depends upon the presence of extremely small plants and animals.

There is another phenomenon of water which is generally due to the presence of animalcules, and that is the beautiful phosphorescent<sup>10</sup> appearance observed by every one who has sailed by night upon the sea. Sometimes, when of small extent, it is caused by fish traversing the waves like a flaming arrow ; at other times it is owing to the presence of medusæ.<sup>11</sup> The phenomenon, however, is most frequently seen in places where the sea is in movement ; every wave as it is cut by the prow of the ship rolls off in luminous foam, and the crests of the billows sparkle like the starry sky. Such is the effect of swarms of animalcules, having a phosphorescent coating.

But microscopic life does not invade only air, earth, and water. It is met with also, full of power and vitality, in the interior of animals and plants. A man's mouth, for instance, unless kept scrupulously clean, is inhabited by myriads of animalcules ; the tartar that collects on our teeth being often nothing else than incrustations formed of the skeletons of these tiny creatures. Innumerable legions of a



tiny worm often invade the flesh of animals. The pig is the favourite abode of these microscopic worms ; but they are sometimes seen in man, especially in those cases where, as in Germany, ham and sausages are eaten raw.

<sup>1</sup> **Telescope.**—An instrument for making distant objects seem near [Gr. *tele*, far ; *scopeo*, to see].

<sup>2</sup> **Microscope.**—An instrument for magnifying small things, or making them seem bigger [Gr. *micros*, small ; *scopeo*, to see].

<sup>3</sup> **Microscopic world.**—A world of little creatures invisible to the naked eye.

<sup>4</sup> **Living organisms.**—Creatures having organs of life ; thus the eye is an organ or instrument for seeing. Plants and animals, having organs of life, are termed *organic* ; but minerals, having no organs of life, are termed *inorganic*.

<sup>5</sup> **Precarious subsistence.**—Uncertain means of living.

<sup>6</sup> **Animalcules.**—Extremely small animals : *cule* or *cle* at the end of a word expresses smallness—as *particle*, a small part ; *radicle*, a small root.

<sup>7</sup> **Peculiar denizens.**—Those that are found only in some particular place ; e.g., the kangaroo is peculiar to Australia.

<sup>8</sup> **Mollusc.**—A soft, flabby creature, provided with a shell (or shells), like the cockle and the oyster [L. *mollis*, soft].

<sup>9</sup> **Phenomenon.**—A remarkable appearance in nature, like falling stars, eclipses, etc.

<sup>10</sup> **Phosphorescent.**—Shining in the dark, like phosphorus.

<sup>11</sup> **Medusæ.**—See lesson on them, pp. 139—142. J 224015

## BENEVOLENCE OF THE CREATOR.

[PALEY, born 1743, was one of the greatest divines of his day. His works are, *The Principles of Moral and Political Philosophy*, *Horæ Paulinæ*, *Evidences of Christianity*, and *Natural Theology*—a convincing demonstration of the existence of a Deity from his works.]

It is a happy world, after all. The air, the earth, the water, teem with delighted existence. In a spring noon or a summer evening, on whichever side I turn my eyes, myriads of happy beings crowd upon my view. "The insect youth are on the wing." Swarms of new-born flies are trying their pinions in the air. Their sportive motions, their wanton mazes,<sup>1</sup> their gratuitous activity,<sup>2</sup> their continual change of place without use or purpose, testify their joy and the exultation which they feel in their lately-discovered faculties.<sup>3</sup> A bee amongst the flowers in spring is one of the most cheerful objects that can be looked upon. Its life appears to be all enjoyment ; so busy and so pleased : yet it is only a specimen of insect life, with which, by reason of the creature being half domesticated, we happen to be better acquainted than we

are with that of others. The whole winged insect tribe, it is probable, are equally intent upon their proper employments, and, under every variety of constitution,<sup>4</sup> gratified, and perhaps equally gratified, by the offices which the Author of their nature has assigned to them.

But the atmosphere is not the only scene of enjoyment for the insect race. Plants are covered with aphides,<sup>5</sup> greedily sucking their juices, and constantly, as it should seem, in the act of sucking. It cannot be doubted but that this is a state of gratification: what else should fix them so close to the operation and so long? Other species are running about with an alacrity in their motions which carries with it every mark of pleasure. Large patches of ground are sometimes half covered with these brisk and sprightly natures.

If we look to what the waters produce, shoals of the fry of fish frequent the margins of rivers, of lakes, and of the sea itself. These are so happy that they know not what to do with themselves. Their attitudes, their vivacity, their leaps out of the water, their frolics in it—which I have noticed a thousand times with equal attention and amusement—all conduce to show their excess of spirits, and are simply the effects of that excess. Walking by the sea-side in a calm evening upon a sandy shore, and with an ebbing tide, I have frequently remarked the appearance of a dark cloud, or rather very thick mist, hanging over the edge of the water, to the height, perhaps, of half a yard, and of the breadth of two or three yards, stretching along the coast as far as the eye could reach, and always retiring with the water. When this cloud came to be examined, it proved to be nothing else than so much space filled with young shrimps in the act of bounding into the air from the shallow margin of the water, or from the wet sand. If any motion of a mute animal could express delight, it was this; if they had meant to make signs of their happiness, they could not have done it more intelligibly. Suppose, then—what I have no doubt of—each individual of this number to

be in a state of positive enjoyment: what a sum, collectively, of gratification and pleasure have we here before our view!

The young of all animals appear to me to receive pleasure simply from the exercise of their limbs and bodily faculties, without reference to any end to be attained, or any use to be answered by the exertion. A child, without knowing anything of the use of language, is in a high degree delighted with being able to speak. Its incessant repetition of a few articulate sounds,<sup>6</sup> or perhaps of the single word which it has learned to pronounce, proves this point clearly. Nor is it less pleased with its first successful endeavours to walk, or rather to run—which precedes walking—although entirely ignorant of the importance of the attainment to its future life, and even without applying it to any present purpose. A child is delighted with speaking, without having anything to say; and with walking, without knowing where to go. And, prior to both these, I am disposed to believe that the waking-hours of infancy are agreeably taken up with the exercise of vision, or perhaps, more properly speaking, with learning to see.

But it is not for youth alone that the great Parent of creation hath provided. Happiness is found with the purring cat no less than with the playful kitten; in the arm-chair of dozing age, as well as in either the sprightliness of the dance or the animation of the chase.<sup>7</sup> To novelty, to acuteness of sensation,<sup>8</sup> to hope, to ardour of pursuit,<sup>9</sup> succeeds what is, in no inconsiderable degree, an equivalent<sup>10</sup> for them all,—“perception of ease.”<sup>11</sup> Herein is the exact difference between the young and the old. The young are not happy but when enjoying pleasure; the old are happy when free from pain.

<sup>1</sup> *Wanton mazes.*—Sportive windings.

<sup>2</sup> *Gratuitous activity.*—Movement for the sake of moving.

<sup>3</sup> *Faculties.*—Powers (of seeing, flying, etc.).

<sup>4</sup> *Variety of constitution.*—Difference of form and nature.

<sup>5</sup> *Aphides (a-phi-des).*—Little insects.

<sup>6</sup> *Articulate sounds.*—Such as go to form words.

\* **Animation of the chase.**—Life and spirit of the hunt.

\* **Acuteness of sensation.**—Sharpness and quickness of perception, due to keen eyesight, etc.

\* **Ardour of pursuit.**—Eagerness in carrying on some work.

\* **Equivalent.**—Something equal to another [L., *æquus*, equal].

\* **Perception of ease.**—Conscious feeling of being at ease.

## THE SWORD.

'Twas the battle-field, and the cold pale moon  
Looked down on the dead and dying,  
And the wind pass'd o'er with a dirge and a wail  
Where the young and brave were lying.

With his father's sword in his red right hand,  
And the hostile dead around him,  
Lay a youthful chief; but his bed was the ground,  
And the grave's icy sleep had bound him.

A reckless rover, 'mid death and doom,  
Pass'd a soldier, his plunder seeking,  
Careless he stepped where friend and foe  
Lay alike in their life-blood reeking.

Drawn by the shine of the warrior's sword  
The soldier paused beside it;  
He wrenched the hand with a giant's strength,  
But the grasp of the dead defied it.

He loosed his hold, and his English heart  
Took part with the dead before him,  
And he honour'd the brave who died sword in hand,  
As with soften'd brow he leaned o'er him.

"A soldier's death thou hast boldly died,  
A soldier's grave won by it,  
Before I would take that sword from thine hand  
My own life's blood should dye it.

"Thou shalt not be left for the carrion crow,  
Or the wolf to batten o'er thee,  
Or the coward insult the gallant dead,  
Who in life had trembled before thee."

Then dug he a grave in the crimson earth,  
Where his warrior foe was sleeping,  
And he laid him there in honour and rest,  
With his sword in his own brave keeping.

MISS LONDON.

### DON QUIXOTE.

DON QUIXOTE is the hero of a celebrated Spanish romance<sup>1</sup> of that name, written by Cervantes, and given to the world in 1604. This renowned work of fiction has been translated into all the languages of the civilized world, and has been read with delight by thousands upon thousands in every generation since it first appeared. Artists have vied with each other in depicting on canvas the chief persons and scenes described by the pen of Cervantes.

#### KNIGHT AND SQUIRE.

In nearly every picture gallery of importance you may see paintings of Don Quixote, with his tall spare figure, thin hollow cheeks, bright eyes, scanty hair, and furrowed brow—looking a perfect gentleman, in spite of the ludicrous appearance he presents in his old suit of armour, with a pasteboard visor, mounted on a sorry jade of a horse, which all the world knows by the name of Rozinante. And wherever a picture of Don Quixote is to be seen, there is probably not far off a picture of Sancho Panza—his humble companion in all his adventures. For as Robinson Crusoe had his man Friday for companion and servant, so Don Quixote had a faithful follower and friend in the person of Sancho Panza, who was a little, dumpy, round-made man, fonder of good victuals than of hard work, and much happier when riding on his ass Dapple than trudging wearily along on foot—a queer compound of shrewdness and ignorance, of cunning and credulity.

Don Quixote, whose head had been turned by allowing his mind to dwell too exclusively on the marvellous stories in old romances—on the imaginary deeds of knights-errant<sup>2</sup> which he mistook for real achievements—resolved to emulate their feats of valour, and to go forth as a knight-errant

in quest of adventures, with the design of delivering the oppressed, of helping the helpless, of redressing grievances, and of waging war against giants, necromancers,<sup>3</sup> and all the powers of evil. And as he knew knights to be accompanied by squires, he appointed Sancho Panza to that post of honour—enticing the poor, silly clown, by fair promises, to share his adventures. Among other inducements, to prevail upon Sancho to accept his offer, the crazed knight, who sincerely believed his own words, declared that it was usual for knights-errant, like himself, to fall upon such adventures as would secure for their squires the government of a rich island or some other desirable domain.

Such was the knight, and such the squire, who went forth into the world—the one in a disinterested spirit for the advantage of mankind, and the other in the expectation of promoting his own fortune—the one moved by noble aims and high-flown fancies, disdainful of danger ; the other with the conviction that self-preservation is the first law of nature and self-interest the highest aim of man.

In the story of their adventures, Cervantes amuses his readers with the comical delusions<sup>4</sup> of the enthusiastic knight,<sup>5</sup> and the still more comical credulity<sup>6</sup> of his cool-headed squire. A vein of rich humour runs throughout the book, from the first page to the last. At the same time a true insight is given into the working of the human passions ; whilst it is impossible for any thoughtful reader to avoid noticing the mischief wrought by good and pure intentions when not under the guidance of good common sense. This is sufficiently apparent in

#### THE KNIGHT'S FIRST ADVENTURE.

Our hero<sup>7</sup> had not travelled far, when he fancied he heard an effeminate voice complaining in a thicket on his right hand. "I thank Heaven," said he, when he heard the cries, "for favouring me so soon with an opportunity to

perform the duty of my profession, and reap the fruits of my desire ; for these complaints are certainly the moans of some distressed creature who wants my present help." Then turning to that side with all the speed which Rozinante could make, he no sooner came into the wood but he found a mare tied to an oak, and to another a young lad about fifteen years of age, naked from the waist upwards. This was he who made such a lamentable outcry ; and not without cause, for a lusty country fellow was strapping him soundly with a girdle, at every stripe putting him in mind of a proverb, *Keep your mouth shut, and your eyes open.* " Good master," cried the boy, " I'll do so no more : indeed, master, hereafter I'll take more care of your goods."

Don Quixote seeing this, cried in an angry tone, " Discourteous knight,<sup>8</sup> 'tis an unworthy act to strike a person who is not able to defend himself : come, bestride thy steed, and take thy lance, then I'll make thee know thou hast acted the part of a coward."

The country fellow, who gave himself up for lost at the sight of an apparition in armour brandishing his lance at his face, answered him in mild and submissive words : " Sir knight," cried he, " this boy, whom I am chastising, is my servant ; and because I correct him for his carelessness or his knavery, he says I do it out of covetousness, to defraud him of his wages ; but, upon my life and soul, he belies me."

" Sayest thou this in my presence, vile rustic ?" cried Don Quixote ; " for thy insolent speech I have a good mind to run thee through the body with my lance. Pay the boy this instant without any more words, or I will immediately despatch and annihilate<sup>9</sup> thee : unbind him, I say, this moment."

The countryman hung down his head, and without any further reply unbound the boy ; who being asked by Don Quixote what his master owed him, told him it was nine months' wages, at seven reals a month. The knight having cast it up, found it came to sixty-three reals<sup>10</sup> in all ; which he ordered the farmer to pay the fellow immediately, un-

less he intended to lose his life that very moment. "The worst is, sir knight," cried the farmer, "that I have no money about me; but let Andres go home with me, and I'll pay him every piece out of hand."

"What, I go home with him!" cried the youngster; "I know better things: for he'd no sooner have me by himself, but he'd flay me alive, like another St. Bartholomew."<sup>11</sup> "He will not dare," replied Don Quixote; "I command him, and that's sufficient: therefore, provided he will swear by the order of knighthood<sup>12</sup> which has been conferred upon him, that he will duly observe this regulation, I will freely let him go, and then thou art secure of thy money." "Good sir, take heed what you say," cried the boy; "for my master is no knight, nor ever was of any order in his life: he's John Haldudo, the rich farmer of Quintinar." "This signifies little," answered Don Quixote, "for there may be knights among the Haldudos; besides, the brave man carves out his fortune, and every man is the son of his own works." "That's true, sir," quoth Andres; "but of what works can this master of mine be the son, who denies me my wages, which I have earned with the sweat of my brow?" "I do not refuse to pay thee thy wages, honest Andres," cried the master; "do but go along with me, and by all the orders of knighthood in the world, I promise to pay thee every piece, as I said." "Be sure," said Don Quixote, "you perform your promise; for if you fail, I will assuredly return and find you out, and punish you moreover, though you should hide yourself as close as a lizard. And if you will be informed who it is that lays these injunctions on you, that you may understand how highly it concerns you to observe them, know, I am Don Quixote de la Mancha, the righter of wrongs, the revenger and redresser of grievances: and so farewell; but remember what you have promised and sworn, as you will answer for it at your peril." This said, he clapped spurs to Rozinante, and quickly left them behind.

The countryman, who followed him with both his eyes,



no sooner perceived that he was past the woods, and quite out of sight, than he went back to his boy Andres. "Come, child," said he, "I will pay thee what I owe thee, as that righter of wrongs and redresser of grievances has ordered me." "Ay," quoth Andres, "on my word, you will do well to fulfil the commands of that good knight, whom Heaven grant long to live ; for he is so brave a man, and so just a judge, that if you don't pay me he will come back and make his words good." "I dare swear as much," answered the master ; "and to show thee how much I love thee, I am willing to increase the debt, that I may enlarge the payment." With that he caught the youngster by the arm, and tied him again to the tree ; where he handled him so unmercifully, that scarce any signs of life were left in him. "Now call your righter of wrongs, Mr. Andres," cried the farmer, "and you shall see he will never be able to undo what I have done ; though I think it is but a part of what I ought to do, for I have a good mind to flay you alive, as you said I would, you rascal." However, he untied him at last, and gave him leave to go and seek out his judge, in order to have his decree put in execution. Andres went his ways, not very well pleased, you may be sure, yet fully resolved to find out the valorous Don Quixote, and give him an exact account of the whole transaction, that he might pay the abuse with sevenfold usury.<sup>13</sup> in short, he crept off sobbing and weeping, while his master stayed behind laughing. And in this manner was this wrong redressed by the valorous Don Quixote de la Mancha.

<sup>1</sup> **Romance.**—A fictitious narrative, in which very strange adventures are related about princesses and other personages of high birth and position.

<sup>2</sup> **Knights-errant.**—Wandering knights ; that is, gentlemen on horseback, clad in armour, and travelling about as the guardians and deliverers of the weak and the oppressed.

<sup>3</sup> **Necromancer.**—One who pretends to foretell future events by communication with the dead.

<sup>4</sup> **Comical delusions.**—Odd mistaken fancies.

<sup>5</sup> **Enthusiastic knight.**—Don Quixote was full of enthusiasm, that is, passionate zeal. He was very warm in the work which he had undertaken, and formed great expectations from it.

<sup>6</sup> **Comical credulity.**—Readiness to believe odd, strange things.

<sup>7</sup> **Our hero.**—A hero is a great warrior, etc. The hero in any novel is the chief

character—the one that takes the most prominent part.

**\* Discourteous knight.**—Don Quixote, being in some respects quite mad, fancies that the farmer is a knight.

**\* Despatch and annihilate.**—Kill and utterly destroy. To annihilate is, strictly speaking, to turn into nothing [L., *nil*, nothing].

**<sup>10</sup> Real.**—A Spanish coin worth about sixpence.

**<sup>11</sup> St. Bartholomew.**—One of the twelve apostles; suffered martyrdom, most likely, in India, but it is not known in what way.

**<sup>12</sup> Order of knighthood.**—The

knights in former times formed a distinct rank or *order* of men, just like the clergy still form a distinct order or class. When a gentleman was admitted into the order of knighthood, he took a solemn oath to fear God, to fight for the faith, to defend the weak, to be courteous to ladies, and to *keep his word*. Hence Don Quixote, thinking he was dealing with a knight, was satisfied with his sworn promise to pay the boy.

**<sup>13</sup> Sevenfold usury.**—*Usury* is interest paid for the loan of money. Hence by “sevenfold usury” is meant paying back seven times as much as was received.

## SANCHO PANZA AS GOVERNOR.

IN the course of their travels, our worthy knight and squire called at the castle of a duke and duchess, who chanced to be acquainted with their strange adventures, and thought they might get much entertainment by humouring their strange fancies. Among other things planned for their own amusement, it occurred to the duke to pretend to put Sancho in possession of the island he had been promised by his master. So the duke took his steward into his confidence,<sup>1</sup> and directed him to give instructions to the inhabitants of a small town on his domains to receive and treat Sancho as their governor.

At length the time arrived for Sancho Panza to depart to the island he had been appointed to govern. He was mounted on a mule, and behind him, by the duke's order, was led his Dapple, bridled and saddled, like a horse of state,<sup>2</sup> in gaudy trappings of silk; which so delighted Sancho, that every now and then he turned his head about to look upon him, and thought himself so happy, that he would not have changed fortunes with the King of Spain.

After having travelled a few miles, Governor Sancho, with his attendants, came to a town that had about a thousand inhabitants, and was one of the best on the duke's terri-

tories. They gave him to understand that the name of the place was the Island of Barataria. As soon as he came to the gates, the magistrates came out to receive him, the bells rang, and all the people gave general demonstrations of joy. They then delivered him the keys of the gates, and received him as perpetual Governor of the Island of Barataria.

Next they conducted Sancho to the court of justice, and placed him in the judge's seat, in the hope of deriving great amusement from his answers to the puzzling and intricate questions which they had secretly arranged for propounding to him.

#### FIRST CASE.

As soon as the Governor had taken his seat, two men came into the court, the one dressed like a country fellow, the other like a tailor, with a pair of shears in his hand. "If it please you, my lord," cried the tailor, "this honest man came to my shop yesterday (for, saving your presence, I am a tailor), and showed me a piece of cloth: 'Sir,' quoth he, 'is there enough of this to make a cap?' Whereupon I measured the stuff, and answered 'Yes.' Now he, thinking doubtless that I had a mind to cabbage some of the cloth, grounding his conceit<sup>s</sup> upon his own knavery, and upon the common ill opinion of tailors, bade me view it again, and see if there was not enough for two. I guessed his drift, and told him there was. Whereupon the old knave, going on to the same tune, bade me look again, and see whether it would not make three; and at last if it would not make five? I was resolved to humour my customer, and said it might; so we struck a bargain. Just now the man is come for his caps, which I gave him; but he refuses to pay me for my work; and now he will have me give him his cloth again, or pay him for it."

"Is this true, honest man?" said Sancho to the farmer. "Yes, if it please you," answered the fellow; "but pray let him

show the five caps he has made me." "With all my heart," cried the tailor; and with that, pulling his hand from under his cloak, he held up five little tiny caps, hanging upon his four fingers and thumb, as upon so many pins. "There," quoth he, "you see the five caps this good gaffer asks for; and, on my conscience, I have not wronged him of the least shred of his cloth; and let any workman be judge."



The sight of the caps, and the oddness of the cause, set the whole court a-laughing. Only Sancho sat gravely considering a while; and then, "Methinks," said he, "this suit<sup>4</sup> may be decided without any more ado, with a great deal of equity; and therefore, the judgment of the court is, that the tailor shall lose his making, and the countryman his cloth, and that the caps be given to the poor prisoners; and so let there be an end of the business."

## SECOND CASE.

If this sentence provoked the laughter of the whole court, the next no less raised their admiration. For after the Governor's order was executed, two old men appeared before him ; one of them with a large cane in his hand, which he used as a staff. "My lord," said the other, who had none, "some time ago I lent this man ten gold crowns, to do him a kindness, which money he was to repay me on demand. I did not ask him for it again for a good while, lest it should prove inconvenient. However, perceiving that he took no care to pay me, I have asked him for my due ; nay, I have been forced to dun<sup>5</sup> him hard for it. But still, he did not only refuse to pay me again, but denied he owed me anything, and said that 'if I lent him so much money, he certainly returned it.' Now, because I have no witnesses of the loan, nor he of the pretended payment, I beseech your lordship to put him to his oath ; and if he will swear he has paid me, I will freely forgive him before God and the world."

"What say you to this, old gentleman with the staff?" asked Sancho. "Sir," answered the old man, "I own he lent me the gold ; and since he requires my oath, I beg you will be pleased to hold down your rod of justice, that I may swear upon it how I have honestly and truly returned him his money."

Thereupon the governor held down his rod ; and in the meantime the defendant<sup>6</sup> gave his cane to the plaintiff to hold, as if it hindered him, while he was to make a cross and swear over the judge's rod. This done, he declared it was true the other had lent him ten crowns, but that he had really returned him the same sum into his own hands. The great Governor, hearing this, asked the creditor<sup>7</sup> what he had to reply. He made answer that, since his adversary had sworn it, he was satisfied ; for he believed him to be a

better Christian than offer to forswear<sup>8</sup> himself, and that perhaps he had forgotten he had been repaid.

Then the defendant took his cane again, and having made a low obeisance to the judge, was immediately leaving the court; which when Sancho perceived, reflecting on the passage of the cane, and admiring the creditor's patience, after he had thought a while he suddenly ordered the old man with the staff to be called back. "Honest man," said Sancho, "let me look at that cane a little; I have a use for it." "With all my heart, sir," answered the other; "here it is;" and with that he gave it him. Sancho took it, and giving it to the other old man, "Thēre," said he, "go your ways, and Heaven be with you, for now you are paid." "How so, my lord?" cried the old man; "do you judge this cane to be worth ten gold crowns?" "Certainly," said the Governor, "or else I am the greatest dunce in the world. And now you shall see whether I have not a headpiece fit to govern a whole kingdom, upon a shift."

This said, he ordered the cane to be broken in open court; which was no sooner done than out dropped the ten crowns. All the spectators were amazed, and began to look on their Governor as a second Solomon.<sup>9</sup> They asked him how he could conjecture that the ten crowns were in the cane. He told them that he had observed how the defendant gave it to the plaintiff to hold while he took his oath, and then swore he had truly returned him the money into his own hands, after which he took his cane again from the plaintiff: this considered, it came into his head that the money was lodged within the reed. From whence may be learned, that though sometimes those that govern are destitute of sense, yet it often pleases God to direct them in their judgment. The two old men went away, the one to his satisfaction, the other with shame and disgrace; and the beholders were astonished; insomuch that the person who was commissioned to register Sancho's words and actions, and observe his behaviour, was not able to determine

whether he should not give him the character of a man, instead of that of a fool, which he had been tho to deserve.

<sup>1</sup> **Took his steward, etc.**—Confided to him the secret.

<sup>2</sup> **Horse of state.**—A horse used on state occasions, as royal processions.

<sup>3</sup> **Conceit.**—Here means thought, opinion; it generally means thinking too much of one's own importance.

<sup>4</sup> **Suit.**—Lawsuit, case brought before the judge for his decision.

<sup>5</sup> **To dun.**—To urge for payment.

<sup>6</sup> **Defendant.**—The one who is charged

with some offence (so called because he has to defend himself). **Plaintiff** one who complains before the judge.

<sup>7</sup> **The creditor.**—The person to whom money is due; *the debtor*, the person who owes the money.

<sup>8</sup> **Forswear himself.**—To swear falsely.

<sup>9</sup> **A second Solomon.**—For judgment of Solomon, *vide* i. iii. 16-28.

## THE WAR TRUMPET.

THE trumpet's voice hath roused the land—

Light up the beacon pyre !

A hundred hills have seen the brand,

And waved the sign of fire.

A hundred banners to the breeze

Their gorgeous folds have cast,

And, hark ! was that the sound of seas ?

A king to war went past.

The chief is arming in his hall,

The peasant by his hearth ;

The mourner hears the thrilling call,

And rises from the earth.

The mother on her firstborn son

Looks with a boding eye ;

*They* come not back, though all be won,

Whose young hearts leap so high.

The bard hath ceased his song, and bound

The falchion to his side ;

E'en for the marriage altar crowned

The lover quits his bride !

And all this haste, and change, and fear,

By *earthly* clarion spread !

How will it be when kingdoms hear

The blast that wakes the dead ?

MRS. HEMAN

**SANCHO PANZA AS GOVERNOR.****THIRD CASE.**

THE next that came before Sancho was a stranger, who put the following case to him, the stewards and the rest of the attendants being present :

"My lord," said he, "a large river divides in two parts one and the same lordship.<sup>1</sup> I beg your honour to lend me your attention, for it is a case of great importance and some difficulty. Upon this river there is a bridge, at the one end of which there stands a gallows, and a kind of court of justice, where four judges used to sit for the execution of a certain law made by the lord of the land and river, which runs thus :

"'Whoever intends to pass from one end of this bridge to the other, must first, upon his oath, declare whither he goes, and what his business is. If he swear truth, he may go on ; but if he swear false, he shall be hanged, and die without remission upon the gibbet at the end of the bridge.'

"After due promulgation of this law, many people, notwithstanding its severity, adventured to go over this bridge ; and as it appeared they swore true, the judges permitted them to pass unmolested. It happened one day that a certain passenger being sworn, declared that he was come to die upon that gallows, and that was all his business.

"This put the judges to a nonplus ;<sup>2</sup> 'for,' said they, 'if we let this man pass freely, he is forsworn, and according to the letter of the law he ought to die ; if we hang him, he has sworn truth, seeing he swore he was going to die on that gibbet ; and then by the same law we should let him pass.'

"Now your lordship's judgment is desired what the judges ought to do with this man : for they are still at a stand ; and not knowing what to determine in this case, and having been informed of your sharp wit and great capacity in



resolving difficult questions, they sent me to beseech your lordship, in their names, to give your opinion in so intricate and knotty a case."

"To deal plainly with you," answered Sancho, "those worshipful judges that sent you hither might as well have spared themselves the trouble; for I am more inclined to bluntness, I assure you, than sharpness: however, let me hear your question once more, that I may thoroughly understand it, and perhaps I may at last hit the nail upon the head." The man repeated the question again; and when he had done, "Hark, honest man," said Sancho, "either I am a very dunce, or there is as much reason to put this same person you talk of to death, as to let him live and pass the bridge; for if the truth saves him, the lie condemns him. Now I would have you tell those gentlemen that sent you, since there is as much reason to bring him off as to condemn him, that they even let him go free; for it is always more commendable to do good than hurt. Nor do I speak this of my own head; but I remember one precept, among many others, that my master Don Quixote gave me the night before I came to govern this island, which was, that when the scale of justice is even, or a case is doubtful, we should prefer mercy before rigour; and it has pleased God I should call it to mind so luckily at this juncture."<sup>3</sup>

"For my part," said the steward, "this judgment seems to me so equitable, that I do not believe Lycurgus himself, who gave the laws to the Lacedæmonians,<sup>4</sup> could ever have decided the matter better than the great Sancho has done. And now, sir, sure there is enough done for this morning; be pleased to adjourn the court, and I will give order that your Excellency may dine to your heart's content."

"Well said," cried Sancho; "that is all I want, and then a clear stage and no favour. Feed me well, and then ply me with cases and questions thick and threefold; you shall see me untwist them, and lay them open as clear as the sun."

## ABDICATION OF THE GOVERNMENT.

Having borne the cares of government for a week, it occurred to Sancho that he would consult his own happiness and peace of mind by abdicating.<sup>5</sup> With this secret resolution he made his way to the stable, followed by the steward and other attendants. On coming to Dapple, he embraced the quiet animal, gave him a loving kiss on the forehead, and with tears in his eyes, "Come hither," said he, "my friend, thou faithful companion and fellow-sharer in my travels and miseries: when thee and I consorted together, and all my cares were but to mend thy furniture and feed thy carcase, then happy were my days, my months, and years. But since I forsook thee, and clambered up the towers of ambition and pride, a thousand woes, a thousand torments, have haunted and worried my soul."

While Sancho was talking thus, he fitted on his pack-saddle, nobody offering to say anything to him. This done, he mounted his ass; and then, addressing himself to the steward, the secretary, the gentleman-waiter, and Doctor Pedro Rezio, and many others that stood by: "Make way, gentlemen," said he, "and let me return to my former liberty. Let me go, that I may seek my old course of life, and rise again from that death which buries me here alive. I know better what belongs to ploughing, delving, pruning, and planting of vineyards, than how to make laws, and defend countries and kingdoms. 'St. Peter is very well at Rome;' which is as much as to say, let every one stick to the calling he was born to. A spade does better in my hand than a governor's truncheon;<sup>6</sup> and I had rather have a mess of plain porridge than lie at the mercy of an officious physic-monger, who starves me to death. I had rather solace myself under the shade of an oak in summer, and wrap myself up in a double sheepskin in the winter, at my liberty, than lay me down, with the slavery of a government, in fine Holland

sheets, and case my body in furs and sables. Heaven be with you, gentlefolks ; and pray tell his Grace <sup>7</sup> from me, that poor I was born, and poor I still remain. I have neither won nor lost ; which is as much as to say, without a penny I came to this government, and without a penny I leave it—quite contrary to what most governors do. Clear the way, then, I beseech you, and let me pass.” With that they all embraced him, and he embraced them all, not without tears in his eyes ; leaving them in admiration of the good sense he had so unexpectedly discovered, in his discourse and conduct, while holding in mockery the reins of government.

<sup>1</sup> **Lordship**.—Here means the estate of a lord ; it is generally a title of respect.

<sup>2</sup> **Nonplus**.—A state in which *no more* can be said or done [L. *non*, not ; *plus*, more].

<sup>3</sup> **Juncture**.—A critical or important point of time.

<sup>4</sup> **Lacedæmonians** or **Spartans**.—One of the nations of ancient Greece.

<sup>5</sup> **Abdicating**.—Retiring from the post of a ruler.

<sup>6</sup> **Governor's truncheon**.—Staff of office as a governor.

<sup>7</sup> **His Grace**.—The duke.

## THE WAY TO WEALTH.

[BENJAMIN FRANKLIN, born, in Boston, 1706 ; died in Philadelphia, 1790. He began his career as a printer's boy ; he became an eminent statesman ; he wrote numerous essays on politics, history, and science ; and among other periodicals he set on foot *Poor Richard's Almanac*, famous for its maxims and proverbs.]

COURTEOUS READER,—

I have heard that nothing gives an author so great pleasure as to find his works respectfully quoted by others. Judge, then, how much I must have been gratified by an incident I am going to relate to you. I stopped my horse lately where a great number of people were collected at an auction of merchants' goods. The hour of the sale not being come, they were conversing on the badness of the times ; and one of the company called to a plain clean old man, with white locks, “ Pray, Father Abraham, what think you of the times ? Will not these heavy taxes quite ruin

the country? How shall we ever be able to pay them? What would you advise us to do?"

Father Abraham stood up and replied, "If you would have my advice, I will give it you in short; for 'a word to the wise is enough,' as Poor Richard says."

They joined in desiring him to speak his mind, and gathering around him, he proceeded as follows:—

"Friends," said he, "the taxes are indeed very heavy, and, if those laid on by the Government were the only ones we had to pay, we might more easily discharge them; but we have many others, and much more grievous to some of us. We are taxed twice as much by our idleness, three times as much by our pride, and four times as much by our folly; and from these taxes the commissioners cannot ease or deliver us, by allowing an abatement. However, let us hearken to good advice, and something may be done for us: 'God helps them that help themselves,' as Poor Richard says.

#### "I. INDUSTRY.

"It would be thought a hard Government that should tax its people one-tenth part of their time, to be employed in its service; but idleness taxes many of us much more; sloth, by bringing on diseases, absolutely shortens life. 'Sloth, like rust, consumes faster than labour wears; while the used key is always bright,' as Poor Richard says. But dost thou love life? then do not squander time, for that is the stuff life is made of. How much more than is necessary do we spend in sleep, forgetting that 'The sleeping fox catches no poultry,' and that 'There will be sleeping enough in the grave,' as Poor Richard says.

"'If time be of all things the most precious, wasting time must be,' as the same authority says, 'the greatest prodigality'; since, as he elsewhere tells us, 'Lost time is never found again; and what we call time enough, always proves little enough.' Let us then up and be doing, and doing to

the purpose ; so by diligence shall we do more with less perplexity. 'Sloth makes all things difficult, but industry all easy ;' and 'He that riseth late must trot all day, and shall scarce overtake his business at night ;' while 'Laziness travels so slowly, that Poverty soon overtakes him,' as Poor Richard says.

"So what signifies wishing and hoping for better times ? We may make these times better, if we bestir ourselves. 'Industry need not wish, and he that lives upon hopes will die fasting.' 'He that hath a trade hath an estate ; but there are no gains without pains.' If we are industrious we shall never starve ; for 'At the working-man's house hunger looks in, but dares not enter.' Nor will the bailiff or the constable enter, for 'Industry pays debts, while despair increaseth them.'

"What though you have found no treasure, nor has any rich relation left you a legacy,—'Diligence is the mother of good luck.' 'Then plough deep while sluggards sleep, and you shall have corn to sell and to keep.' Work while it is called to-day, for you know not how much you may be hindered to-morrow. 'One to-day is worth two to-morrows,' as Poor Richard says ; and, further, 'Never leave that till to-morrow which you can do to-day.'

"If you were a servant, would you not be ashamed that a good master should catch you idle ? Are you then your own master ? Be ashamed to catch yourself idle, when there is so much to be done for yourself, your family, your country, and your fellow-men. Handle your tools without mittens ; remember that 'The cat in gloves catches no mice,' as Poor Richard says. It is true there is much to be done, and perhaps you are weak-handed ; but stick to it steadily, and you will see great effects ; for 'Constant dropping wears away stones ;' and 'By diligence and patience the mouse ate in two the cable ;' and 'Little strokes fell great oaks,' as saith Poor Richard.

## " II. VIGILANCE.

"But with our industry we must likewise be steady, settled, and careful, and oversee our own affairs with our own eyes, and not trust too much to others ; for, as Poor Richard says, ' If you would have your business done, go ; if not, send.' And again,—

" ' He that by the plough would thrive  
Himself must either hold or drive.'

And again, ' The eye of a master will do more than both his hands ;' and again, ' Not to oversee workmen is to leave them your purse open.' Trusting too much to others' care is the ruin of many, for ' In the affairs of this world men are saved, not by faith, but by the want of it ;' but a man's own care is profitable, for ' If you would have a faithful servant, and one that you like, serve yourself.' A little neglect may breed great mischief ; for want of a nail the shoe was lost ; for want of a shoe the horse was lost ; and for want of a horse the man was lost, being overtaken and slain by the enemy : all for want of a little care about a horseshoe nail.

## " III. FRUGALITY.

" So much for industry, my friends, and attention to one's own business ; but to these we must add frugality, if we would make our industry more certainly successful. If you would be wealthy, think of saving as well as of getting. The Indies have not made Spain rich, because her outgoes are greater than her incomes.

" Away, then, with your expensive follies, and you will not then have so much cause to complain of hard times, heavy taxes, and chargeable families. Remember ' What maintains one vice would bring up two children.' Beware of little expenses that are apt to recur : ' A small leak will sink a great ship,' as Poor Richard says ; and again, ' Who dainties love shall beggars prove.'

"Now you are all got together at this sale of fineries and knick-knacks. You call them *goods*, but if you do not take care, they will prove *evils* to some of you. You expect they will be sold cheap, and perhaps they may for less than they cost ; but if you have no occasion for them, they must be dear to you. Remember what Poor Richard says : 'Buy what thou hast no need of, and ere long thou shalt sell thy necessities.' And again, 'At a great pennyworth pause a little.' He means that perhaps the cheapness is apparent only, and not real ; or the bargain, by straitening thee in thy business, may do thee more harm than good. For in another place he says, 'Many have been ruined by buying good pennyworths.' Again, 'It is foolish to lay out money in a purchase of repentance ;' and yet this folly is practised every day at auctions, for want of minding *Poor Richard's Almanac*. Many a one, for the sake of finery on the back, has gone with a hungry stomach and half starved his family. 'Silks and satins, scarlet and velvets, put out the kitchen fire,' as Poor Richard says. Poor Dick further advises and says,

" 'Fond pride of dress is sure a very curse :  
Ere fancy you consult, consult your purse.'

When you have bought one fine thing, you must buy ten more, that your appearance may be all of a piece. And it is as truly folly for the poor to ape the rich as for the frog to swell in order to equal the ox. It is, however, a folly soon punished ; for, as Poor Richard says, 'Pride that dines on vanity sups on contempt.'

"You cannot be too careful to maintain your independence by living within your means : 'A ploughman on his legs is higher than a gentleman on his knees.' Think what you do when you run into debt : you give to another power over your liberty. If you cannot pay at the time, you will be ashamed to see your creditor ; you will be in fear when you speak to him ; you will make poor, pitiful, sneaking excuses, and by degrees come to lose your veracity, and sink

into base, downright lying. Does not Poor Richard say, 'Lying rides on Debt's back'? whereas a free-born Englishman ought not to be ashamed nor afraid to see or speak to any man living. But poverty often deprives a man of all spirit and virtue: "It is hard for an empty bag to stand upright." And so, 'Rather go to bed supperless than rise in debt.'

"If you have a little property, take care to add to it: 'Always taking out of the meal-tub, and never putting in, soon comes to the bottom.' At present, perhaps, you may think yourselves in thriving circumstances, and that you can bear a little expense without injury; but

" 'For age and want save while you may;  
No morning sun lasts a whole day.'

#### "IV. CONCLUSION.

"After all, my friends, do not depend too much upon your own industry, and frugality, and prudence, though excellent things; for they may all be blasted without the blessing of Heaven; and therefore ask that blessing humbly, and be not uncharitable to those that at present seem to want it, but comfort and help them. Remember, Job suffered, and was afterwards prosperous.

"And now, to conclude: 'Experience keeps a dear school, but fools will learn in no other,' as Poor Richard says; and scarce in that, for, it is true, 'We may give advice, but we cannot give conduct.' However, remember this: 'If you will not hear Reason, she will surely rap your knuckles,' as Poor Richard says."

Thus the old gentleman ended his harangue. The people heard it and approved the doctrine, but immediately practised the contrary, for the auction opened, and they began to buy extravagantly.

I am, as ever, thine to serve thee,

RICHARD SAUNDERS.



## NIGHT THOUGHTS.

[EDWARD YOUNG, 1681—1765, is best remembered for his "Night Thoughts" on *Life, Death, and Immortality*. Most of his poetry takes a solemn turn, and was designed to elevate men's minds to the invisible and eternal. Many golden thoughts are scattered throughout his works.]

## SLEEP.

TIRED Nature's sweet restorer, balmy Sleep,—  
He, like the world, his ready visit pays  
Where fortune smiles ; the wretched he forsakes ;  
Swift on his downy<sup>1</sup> pinions flies from woe,  
And lights on lids unsullied with a tear.

## NIGHT.

Night, sable goddess ! from her ebon throne,  
In rayless majesty, now stretches forth  
Her leaden<sup>2</sup> sceptre o'er a slumb'ring world.  
Silence, how dead ! and darkness how profound !  
Nor eye, nor list'ning ear, an object finds :  
Creation sleeps. 'Tis as the general pulse  
Of life stood still and nature made a pause ;  
An awful pause ! prophetic of her end.

## TIME.

The bell strikes one. We take no note of time,  
But from its loss. To give it then a tongue  
Is wise in man. As if an angel spoke,  
I feel the solemn sound. If heard aright,  
It is the knell of my departed hours :  
Where are they ? With the years beyond the flood.  
It is the signal that demands despatch ;  
How much is to be done ! my hopes and fears  
Start up alarmed, and o'er life's narrow verge<sup>3</sup>  
Look down—On what ! A fathomless abyss,<sup>4</sup>  
A dread eternity ! how surely mine.

## THE MYSTERY OF MAN.

And can eternity belong to me,  
Poor pensioner on the bounties of an hour ?  
How poor, how rich, how abject,<sup>5</sup> how august,  
How complicate, how wonderful, is man !

How passing wonder HE, who made him such ;  
 Who centred in our make such strange extremes,  
 From different natures marvellously mixed !  
 Connection exquisite of distant worlds ;  
 Distinguished link in being's endless chain,  
 Midway from nothing to the Deity ! . . .  
 Dim miniature<sup>6</sup> of greatness absolute !  
 An heir of glory ! a frail child of dust !  
 Helpless immortal ! insect infinite !  
 A worm ! a god !—I tremble at myself,  
 And in myself am lost, at home a stranger !  
 What can preserve my life, or what destroy ?  
 An angel's arm can't snatch me from the grave ;  
 Legions<sup>7</sup> of angels can't confine me there.

## PROCRASTINATION.

Where is to-morrow ? In another world.  
 For numbers this is certain ; the reverse  
 Is sure to none ; and yet on this *perhaps*,  
 This *peradventure*, infamous for lies,  
 As on a rock of adamant, we build  
 Our mountain hopes ; spin out eternal schemes  
 As we the fatal sisters could out-spin,  
 And, big with life's futurities, expire.  
 Be wise to-day : 'tis madness to defer ;  
 Next day the fatal precedent<sup>8</sup> will plead ;  
 Thus on, till wisdom is pushed out of life.  
 Procrastination<sup>9</sup> is the thief of time ;  
 Year after year it steals till all are fled,  
 And to the mercies of a moment leaves  
 The vast concerns of an eternal scene.

<sup>1</sup> **Downy pinions.**—Wings soft as down.

<sup>2</sup> **Leadens sceptre.**—A sceptre is a staff held by kings as a symbol of power, usually of gold. The poet gives Night a leaden sceptre "to express the dulness and heaviness of her reign."

<sup>3</sup> **Verge.**—The edge or border. The poet speaks of himself as looking over the brink of time into the gulf of eternity below.

<sup>4</sup> **A fathomless abyss.**—A bottomless gulf, or one too deep to be measured.

<sup>5</sup> **Abject,** mean ; **August,** majestic ; **implicate,** complex—man being en-

dowed with soul and body.

<sup>6</sup> **Miniature.**—A very small likeness. Man is a dim miniature of his Maker, in whose image or likeness he was made [L. *minimum*, the least].

<sup>7</sup> **Legion.**—A division of the Roman army consisting of about 5000 men.

<sup>8</sup> **Fatal precedent.**—A precedent is that which serves as an example or rule for the future. Thus putting off a thing to-day becomes a precedent for doing the same to-morrow. Hence called a fatal or ruinous precedent.

<sup>9</sup> **Procrastination.**—Act of putting off till to-morrow [L. *cras*, to-morrow].

## STORMING OF ST. SEBASTIAN.

[Abridged from the spirited narrative of the Rev. G. R. Gleig, late Chaplain-general of the army. It gives a good idea of the mode of conducting a siege, and of the feelings of the soldiers engaged, together with a vivid description of the storming of a fortress, and of the attendant horrors of war. St. Sebastian was stormed in the year 1813, during the Peninsular war. The place was held by the French, and attacked by the British, and their allies, the Portuguese.]

### SIEGE OPERATIONS.

ST. SEBASTIAN occupies a neck of land which juts into the sea, being washed on two sides by the waters of the Bay of Biscay, and on the third by the river Gurumea. This stream cannot be forded near the town except at low tide; it therefore adds not a little to the strength of the place. Across the isthmus, from the river to the bay, is erected a chain of stupendous masonry, consisting of several bastions<sup>1</sup> and towers, and covered<sup>2</sup> by a ditch and glacis<sup>3</sup>; whilst the castle, built upon a high hill, completely commands the whole.

The tents of the besiegers were placed upon a low range of hills, about two miles distant from the town, and were pitched among the orchards, and in the valleys and ravines, so as to be hidden from the enemy. Leading from them to the first parallel<sup>4</sup> were cut various covered ways—that is, roads sunk in the ground so far as that troops might march along without exposing themselves to the fire of the enemy; and the parallel was drawn almost upon the brow of the ridge. In the ruined convent of Bartholeme, which stood near, was established the principal magazine of powder, shot, working-tools, and other necessities for the siege; and here, as a matter of course, the reserve, or main body of the piquet<sup>5</sup> guard, was stationed. The first parallel extended some way beyond the town, on both sides, and was connected with the second, as that again was with the third, by other covered

ways, cut in an oblique direction towards the enemy's works ; but no sap<sup>6</sup> had been attempted. The third parallel therefore completed the work of the besiegers, and it was carried within a few hundred yards of the foot of the rampart.<sup>7</sup> In each of these parallels batteries were built, as well as on the brows of all the surrounding heights, but as yet they were masked by slight screens of sand and turf.

There is no species of duty in which a soldier is liable to be employed so galling, or so disagreeable, as a siege : not that it is deficient in causes of excitement, which, on the contrary, are in hourly operation ; but it ties him so completely down to one spot, and breaks in so repeatedly upon his hours of rest, and exposes him so constantly to danger, and that, too, at times and in places where no honour is to be gained, that we cannot greatly wonder at the feelings of absolute hatred which generally prevail, among the privates at least of a besieging army, against the garrison which does its duty to its country by holding out to the last extremity. Everything which could be done to retard the progress of the siege was done by the French on this occasion. Night after night petty sorties<sup>8</sup> were made, with no other apparent design than to disturb the repose and to harass the spirits of the besiegers.

Meanwhile the besieging army was busily employed in bringing up ammunition,<sup>9</sup> and in dragging into battery<sup>10</sup> one of the most splendid trains of heavy ordnance<sup>11</sup> which a British general has ever had at his command. On the evening of the 26th of August (1813), these matters were completed. Accordingly, soon after daybreak on the 27th, a single shell was thrown as a signal for the batteries to open, and then a most tremendous cannonade began. The first salvo,<sup>12</sup> indeed, was one of the finest things of the kind I have ever witnessed. Without taking the trouble to remove the slight covering of sand and turf which masked the batteries, the artillerymen, laying their guns by such observations as small apertures left for the purpose enabled

them to effect, fired upon the given signal, and thus caused the guns to clear a way for themselves. An unintermitting fire was kept up from morning till night, so that by sunset on the 30th the breach<sup>13</sup> in the walls was considered practicable.

#### WAITING TO ATTACK.

It was resolved to storm the place on the following morning. The forlorn hope<sup>14</sup> took its station at the mouth of the most advanced trench at half-past ten o'clock. The tide, which had long turned, was now fast ebbing, and these gallant fellows beheld its departure with a degree of feverish anxiety such as he only can imagine who has stood in a similar situation. It would be difficult to convey to the mind of an ordinary reader anything like a correct notion of the state of feeling which takes possession of a man waiting for the commencement of a battle. In the first place time appears to move upon leaden wings: every minute seems an hour, and every hour a day. Then there is a strange commingling of levity and seriousness within him—a levity which prompts him to laugh, he scarce knows why, and a seriousness which urges him ever and anon to lift up a mental prayer to the throne of grace. On such occasions little or no conversation passes. The privates generally lean upon their firelocks—the officers upon their swords; and few words, except monosyllables, are wasted. On these occasions, too, the faces of the bravest often change colour, and the limbs of the most resolute tremble, not with fear, but with anxiety; whilst watches are consulted, till the individuals who consult them grow absolutely weary of the employment. On the whole, it is a situation of higher excitement, and darker and deeper agitation, than any other in human life; nor can he be said to have felt all which man is capable of feeling, who has not experienced it.

## THE ATTACK.

Noon had barely passed when, the low state of the tide giving evidence that the river might be forded, the word was given to advance. Silent as the grave, the column moved forward. In one instant the leading files had cleared the trenches, and the others poured on in quick succession after them, when the work of death began. The enemy, having reserved their fire till the head of the column had gained the middle of the stream, then opened with the most deadly effect. Grape, canister,<sup>15</sup> musketry, shells, grenades, and every species of missile, were hurled from the ramparts, beneath which our gallant fellows dropped like corn before the reaper; insomuch that, in the space of two minutes, the river was literally choked up with the bodies of the killed and wounded, over whom, without discrimination, the advancing divisions pressed on. The opposite bank was soon gained, and the short space between the landing-place and the foot of the breach rapidly cleared, without a single shot having been returned by the assailants.

But here the most alarming prospect awaited them. Instead of a wide and tolerably level chasm, the breach presented the appearance only of an ill-built wall, thrown considerably from its perpendicular—to ascend which, even though unopposed, would be no easy task. It was, however, too late to pause; besides, the men's blood was hot, and their courage on fire. So they pressed on, clambering up as they best could, and effectually hindering one another from falling back by the eagerness of the rear ranks to follow those in front. Shouts and groans were now mingled with the roar of cannon and the rattle of musketry; our front ranks likewise had an opportunity of occasionally firing with effect; and the slaughter on both sides was dreadful.

At length the head of the column forced its way to the summit of the breach, where it was met in the most gallant style by the bayonets of the garrison. When I say the

summit of the breach, I mean not to assert that our soldiers stood upon a level with their enemies, for this was not the case. There was a high step, perhaps two or three feet in length, which the assailants must surmount before they could gain the same ground with the defenders; and a very considerable period elapsed ere that step was surmounted. Here bayonet met bayonet, and sabre met sabre, in close and desperate strife, without the one party being able to advance, or the other succeeding in driving them back. Perceiving that matters were almost desperate, General Graham had recourse to a desperate remedy, and ordered our own artillery to fire upon the breach. Nothing could be more exact or beautiful than this practice. Though our men stood only about two feet below the breach, scarcely a single ball from the guns of our batteries struck amongst them, whilst all told with fearful exactness among the enemy.

#### THE VICTORY.

This fire had been kept up only a few minutes, when all at once an explosion took place, such as drowned every other noise, and apparently confounded, for an instant, the combatants on both sides. A shell from one of our mortars<sup>16</sup> had exploded near the train which communicated with a quantity of gunpowder placed under the breach. This mine the French had intended to spring as soon as our troops should have made good their footing, or established themselves upon the summit; but the fortunate accident just mentioned anticipated them. It exploded whilst three hundred grenadiers, the *élite*<sup>17</sup> of the garrison, stood over it, and instead of sweeping the storming party into eternity, it only cleared a way for their advance. It was a spectacle as appalling and grand as the imagination can conceive. Such, indeed, was the effect of the whole occurrence that, for perhaps half a minute after, not a shot was fired on either side. Both parties stood still to gaze upon the havoc that

had been made, insomuch that a whisper might have caught your ear for a distance of several yards.

The state of stupefaction into which they were at first thrown did not, however, last long with the British troops. As the smoke and dust of the ruins cleared away, they beheld before them a space empty of defenders, and they instantly rushed forward to occupy it. Uttering an appalling shout, the troops sprang over the dilapidated parapet,<sup>18</sup> and the rampart was their own. Now, then, began all those maddening scenes which are witnessed only in a successful storm<sup>19</sup>—of flight, and slaughter, and parties rallying only to be broken and dispersed; till, finally, having cleared the works to the right and left, the soldiers poured down into the town. To reach the streets, they were obliged to leap about fifteen feet, or to make their way through the burning houses which joined the wall. Both courses were adopted, according as different parties were guided in their pursuit of the flying enemy; and here again the battle was renewed. The French fought with desperate courage; they were literally driven from house to house and street to street, nor was it till a late hour in the evening that all opposition on their part ceased.

<sup>1</sup> **Bastion**.—A mass of earth or stone standing out from a rampart (*vide* 7 below).

<sup>2</sup> **Covered by**.—Protected by.

<sup>3</sup> **Glacis**.—A sloping bank in a fortification.

<sup>4</sup> **First parallel**.—First trench, or sunken road, cut by the besiegers *parallel* to the line of the enemy's fortifications.

<sup>5</sup> **Piquet**.—A small body of men placed as a guard of observation near the enemy.

<sup>6</sup> **Sap**.—The undermining of the enemy's works.

<sup>7</sup> **Rampart**.—The wall or mound round a fortified place.

<sup>8</sup> **Sorties**.—Sudden attacks made by the besieged upon the besiegers (*Fr. sortir*, to go out).

<sup>9</sup> **Ammunition**.—Military stores: powder, shot, shells, etc.

<sup>10</sup> **Battery**.—Place prepared for mounting cannons, or the cannons themselves ranged in order for firing.

<sup>11</sup> **Ordnance**.—Great guns, artillery

(to be distinguished from *ordnance*, a law).

<sup>12</sup> **Salvo**.—Simultaneous firing of several guns.

<sup>13</sup> **Breach . . . practicable**.—Gap made in the walls was thought sufficient for the besiegers to enter by.

<sup>14</sup> **Forlorn hope**.—A body of soldiers who have volunteered to lead the attack on a fortress.

<sup>15</sup> **Grape and Canister**.—Two kinds of charges for a cannon—they consist of cases of bullets. **Shells and Grenades** are full of powder and shot, so constructed as to explode after touching the ground.

<sup>16</sup> **Mortar**.—A piece of ordnance like a short cannon with a very big mouth, used for throwing bombs and shells.

<sup>17</sup> **Elite**.—Picked men.

<sup>18</sup> **Parapet**.—A wall breast-high. **Dilapidated**.—In a ruined state [*L. dis*, asunder, *lapis*, a stone].

<sup>19</sup> **Storm**.—A violent attack upon a fortress by an attempt to force an entrance.



## PEACE AND WAR.

[PERCY BYSSHE SHELLEY, born at Horsham, Sussex, 1792 ; drowned on the coast of Italy, 1822. His history is a very melancholy one. He was expelled from his College at Oxford for his writings on Atheism. He eloped with the daughter of a retired hotel-keeper, whom he married when their united ages amounted only to thirty-five. His wife in the course of a few years drowned herself in the Serpentine.]

How beautiful this night !—the balmiest sigh  
Which vernal zephyrs<sup>1</sup> breathe in evening's ear  
Were discord to the speaking quietude  
That wraps this noiseless scene. Heaven's ebony<sup>2</sup> vault  
Studded with stars unutterably bright,  
Through which the moon's unclouded grandeur rolls,  
Seems like a canopy<sup>3</sup> which Love has spread  
To curtain her sleeping world. Yon gentle hills  
Robed in a garment of untrodden snow ;  
Yon darksome rocks, whence icicles depend,<sup>4</sup>  
So stainless, that their white and glittering spires<sup>5</sup>  
Tinge not the moon's pure beam ; yon castled steep  
Whose banner hangeth o'er the time-worn tower  
So idly, that fancy deemeth it  
A metaphor<sup>6</sup> of peace ;—all form a scene  
Where musing solitude might love to lift  
Her soul above this sphere of earthliness ;  
Where silence undisturbed might watch alone,  
So cold, so bright, so still.

Ah ! whence yon glare  
That fires the arch of Heaven ? That dark-red smoke  
Blotting the silver moon ? The stars are quenched  
In darkness, and the pure and spangling<sup>7</sup> snow  
Gleams faintly through the gloom that gathers round !  
Hark to that roar, whose swift and deafening peals  
In countless echoes through the mountains ring,  
Startling pale Midnight on her starry throne !  
Now swells the intermingling din ; the jar,  
Frequent and frightful, of the bursting bomb ;  
The falling beam, the shriek, the groan, the shout,  
The ceaseless clangour, and the rush of men  
Inebriate<sup>8</sup> with rage :—loud and more loud  
The discord grows ; till pale death shuts the scene,  
And o'er the conqueror and the conquered draws  
His cold and bloody shroud. Of all the men  
Whom day's departing beam saw blooming there,

In proud and vigorous health,—of all the hearts  
 That beat with anxious life at sunset there,—  
 How few survive, how few are beating now !  
 All is deep silence, like the fearful calm  
 That slumbers in the storm's portentous<sup>9</sup> pause ;  
 Save<sup>10</sup> when the frantic wail of widow'd love  
 Comes shuddering on the blast, or the faint moan  
 With which some soul bursts from the frame of clay,  
 Wrapt round its struggling powers.

The gray morn  
 Dawns on the mournful scene ; the sulphurous smoke  
 Before the icy winds slow rolls away,  
 And the bright beams of frosty morning dance  
 Along the spangling snow. There tracks of blood,  
 Even to the forest's depth, and scattered arms,  
 And lifeless warriors, whose hard lineaments<sup>11</sup>  
 Death's self could change not, mark the dreadful path  
 Of the outsallying victors : far behind  
 Black ashes note where their proud city stood.  
 Within yon forest is a gloomy glen,—  
 Each tree which guards its darkness from the day  
 Waves o'er a warrior's tomb.

<sup>1</sup> **Vernal zephyrs.**—Soft gentle breezes of spring.

<sup>2</sup> **Ebon.**—Black like ebony.

<sup>3</sup> **A canopy.**—Generally a covering overhead ; here it includes the side-curtains as well.

<sup>4</sup> **Depend.**—To hang from [ *L. pendo*, to hang ].

<sup>5</sup> **Spire.**—Generally applied to towers terminating in a point here, to icicles tapering downwards.

<sup>6</sup> **A metaphor of peace.**—A symbol or sign of peace.

<sup>7</sup> **Spangling snow.**—A "spangle" is any little thing that sparkles.

<sup>8</sup> **Inebriate.**—Drunk, out of one's sober senses.

<sup>9</sup> **Portentous pause.**—A sudden silence, betokening some new cause of fear.

<sup>10</sup> **Save.**—Except.

<sup>11</sup> **Lineaments.**—Lines of the face.

## CULTURE OF THE OYSTER.

THE Oyster belongs to the class of animals called *molluscs*. To the same class belong the mussel, the cockle, the limpet, and a host of other shell-fish. The name mollusc implies softness. These creatures, being soft and flabby, are provided with one or more shells for defence. Those having a single shell, like the limpet, are called *univalves*, and those furnished with a double shell, like the oyster, are known as *bivalves*. The mollusc is thus armed and defended against all attacks,

like an armed knight in olden times ; only the knight was able to throw off his coat of mail, whilst the mollusc is attached to its armour by indissoluble bonds.<sup>1</sup> Or, viewing the shell as the house which the mollusc has formed for itself, we see that the builder is inseparable from the edifice it has constructed.

From the immense variety of form and size, from the beauty and brilliancy of their colours, the shells of the molluscs are among the most attractive objects of natural history. The study of shells, or *conchology* as it is termed, is one of great interest and some importance. Every shell, we must remember, was at one time the home of a living creature. An examination of the shell enables the skilled naturalist to determine the habits of the mollusc, and the nature of the element in which it lived—whether in fresh water or salt, whether in a cold or a warm region.

The oyster, however, is not of much interest to us from the shell, but from the delicate substance within it. Man has made use of the oyster from the most remote antiquity.<sup>2</sup> It is thought to be the most digestible food ever set on the table. “We may eat them to-day, to-morrow, eat them always, and in profusion, without fear of indigestion.” The oyster, indeed, is considered by the gastronomist<sup>3</sup> the crown and glory of the table.

England has always been famous for its oysters, and its pearls are said to have been the chief incentive to Cæsar's invasion. Its “natives” are still justly celebrated for their delicious flavour. Curiously enough, the oysters so termed are not bred in their natural beds, but in beds specially prepared for their reception. The “native” oyster-beds at Whitstable, in the estuary of the Thames, are the most productive. Here the oysters are supplied with the proper nutriment ; they are sorted according to size and age ; they are transferred from one bed to another more suitable for their growth or fattening ; the dead or sickly are taken away ; and pains are taken to keep off all creatures that are

known to prey upon them. Almost the entire population of the bay on which Whitstable stands is engaged, directly or indirectly, in the culture of oysters. The great oyster-beds of England extend eastward from Gravesend along the Kentish coast on the one hand, and the coast of Essex on the other. The Frith of Forth is also famous for its oyster-beds, extending from Prestonpans far up the estuary of the river.

"He was a bold man who first ate an oyster," it has been said. The name of the courageous individual has not been recorded, but Mr. Bertram, in his *Harvest of the Sea*, tells us a legend<sup>4</sup> concerning him. "Once upon a time,"—it must have been a long time ago,—“a man of melancholy mood was walking by the shores of a picturesque estuary, listening to the monotonous murmur of the sad sea-waves, when he espied a very old and ugly oyster-shell, all coated over with parasites<sup>5</sup> and seaweeds.

"It was so unprepossessing,<sup>6</sup> that he kicked it with his foot; and the animal, astonished at receiving such rude treatment on its own domain, gaped wide with indignation, preparatory to closing its valves still more tightly. Seeing the beautiful cream-coloured layers that shone within the shelly covering, and fancying that the interior of the shell itself must be beautiful, he lifted up the aged 'native' for further examination, inserting his finger and thumb within its valves.

"The irate<sup>7</sup> mollusc, thinking, no doubt, that this was meant as a further insult, snapped its pearly doors down upon his fingers, causing him considerable pain. After releasing his wounded digits,<sup>8</sup> our inquisitive gentleman very naturally put them in his mouth. 'Delightful!' exclaimed he, opening wide his eyes; 'what is this?'—and again he sucked his fingers. Then the great truth flashed upon him that he had found out a new delight—had, in fact, achieved the most important discovery ever made.

"He proceeded at once to realize the thought. With a stone he opened the oyster's stronghold, and gingerly<sup>9</sup> tried

a piece of the mollusc itself. 'Delicious!' he exclaimed; and there and then, with no other condiment<sup>10</sup> than its own juice, with no accompaniment of foaming brown stout or pale Chablis<sup>11</sup> to wash it down, with no newly-cut well-buttered brown bread, did that solitary anonymous<sup>12</sup> man inaugurate the first oyster banquet."

<sup>1</sup> **Indissoluble bonds.**—Ties not able to be loosened [*L. solvo*, to loosen].

<sup>2</sup> **Remote Antiquity.**—The most distant times in ages past.

<sup>3</sup> **Gastronomist.**—One skilled in the dainties of the table [*Gr. gaster*, the stomach; *nomos*, a law].

<sup>4</sup> **Legend.**—An incredible narrative.

<sup>5</sup> **Parasite.**—Something that adheres to something else in order to live upon it.

<sup>6</sup> **Unprepossessing.**—Unpleasing at first sight.

<sup>7</sup> **Irate.**—Angry [*L. ira*, anger].

<sup>8</sup> **Digits.**—Fingers [*L. digitus*, a finger].

<sup>9</sup> **Gingerly.**—Cautiously and timidly.

<sup>10</sup> **Condiment.**—Seasoning, sauce.

<sup>11</sup> **Chablis.**—A wine.

<sup>12</sup> **Anonymous.**—Without a name.

### PERILS OF THE PEARL FISHERY.

THE sea-born gem, as the beauteous pearl is called, has in all ages and all countries been highly esteemed. Even in America, long before the discovery of that continent by Columbus,<sup>1</sup> pearls were greatly prized by the natives. The Spaniards were surprised on their first landing in the New World, to find the Indians decked out with pearl necklaces and bracelets. Many of the savages were expert divers, and well acquainted with the banks most richly studded with pearl oysters. The only places in the New World which now furnish pearls are the Gulfs of Panama<sup>2</sup> and California.

The fishery is attended with great dangers from the *tintereros*, or ground sharks, and the *mantas*—an immense broad fish, formed like a skate. The mantas are said to hug the divers with two large fins, and to carry them off to be consumed at their leisure. It is usual for the diver to arm himself against the teeth of the shark with a short stick pointed at both ends. He grasps the stick in the middle, and when attacked by the shark, thrusts it between his jaws in such a manner that in attempting to seize his prey the jaws get effectually skewered.

Captain Hardy has written a graphic<sup>3</sup> account of this perilous trade, in which he took a leading part some fifty years ago. "If it be difficult to learn to swim," says Mr. Hardy, "it is infinitely more so to dive. In my first attempts, I could only descend about six feet, and was immediately obliged to rise again to the surface; but by degrees I got down to two or three fathoms, at which depth the pressure of the water upon the ears is so great that I can only compare it to a sharp-pointed iron instrument being violently forced into that organ. My stay under water, therefore, at this depth was extremely short; but as I had been assured that as soon as the ears should "burst," as it is technically<sup>4</sup> called by the divers, there would be no difficulty in descending to any depth, and wishing to become an accomplished diver, I determined to brave the excessive pain, till the bursting should, as it were, liberate me from a kind of cord, which limited my range downwards, in the same way that the ropes of a balloon confine the progress of that machine upwards.

Accordingly, taking a leap from the bows of the boat, full of hope and resolution, with my fingers knit together over my head, the elbows straight, and keeping myself steadily in the inverse order of nature—namely, with my feet perpendicularly upwards—the impetus<sup>5</sup> carried me down about four fathoms, when it became necessary to assist the descent by means of the hands and legs. But, alas! who can count upon the firmness of his resolution? The change of temperature from hot to cold is most sensibly<sup>6</sup> felt. Every fathom fills the imagination with some new idea of the dangerous folly of penetrating farther into the silent dominions of reckless monsters, where the skulls of the dead make perpetual grimaces, and the yawning jaws of sharks and tintereros, or the death-embrace of the manta, lie in wait for us. These impressions were augmented by the impossibility of the vision penetrating the twilight by which I was surrounded, together with the excruciating pain

I felt in my eyes and ears: in short, my mind being assailed by a thousand images of terror, I ceased striking with my hands and legs; I felt myself receding from the bottom; the delightful thought of once more beholding the blue heavens above me got the better of every other reflection; I involuntarily<sup>7</sup> changed the position of my body, and in the next instant found myself once more on the surface.

How did my bosom inflate with the rapid inspirations<sup>8</sup> of my natural atmosphere, and a sensation of indescribable pleasure spread over every part of the body, as though the spirit was rejoicing at its liberation from its watery peril! In fact, it was a new sensation, which I cannot describe. I did not suffer it, however, to be of long duration. Once more I essayed,<sup>9</sup> with a more fixed determination. Again I felt myself gliding through the slippery water, which, from its density, gave one the idea of swimming through a thick jelly; again I experienced the same change of temperature in the water as I descended; and again the agonising sensation in my ears and eyes made me waver. But now reason and resolution urged me on, although every instant the pain increased as I descended; and at the depth of six or seven fathoms I felt a sensation in my ears like that produced by the explosion of a gun; at the same moment I lost all sense of pain, and afterwards reached the bottom with a facility which I had thought unattainable. . . . I no sooner found myself at the surface again, than I became sensible of what had happened to my ears, eyes, and mouth: I was literally<sup>10</sup> bleeding from each of these, though wholly unconscious of it. But now was the greatest danger in diving, as the sharks, mantas, and tintereros have an astonishingly quick scent for blood."

Captain Hardy seems to have had no hairbreadth escapes himself in his search for pearls, although he engaged in the business sufficiently long to become an expert diver. But he gives the following account, which he received from a native named Don Pablo, who was for many years employed in the pearl-fishery:—

"The *Placer* rock was supposed to have quantities of very large pearl-oysters round it—a supposition which was at once confirmed by the great difficulty of finding this sunken rock. Don Pablo, however, succeeded in sounding it; and, in search of specimens of the largest and oldest shells, dived down in eleven fathoms of water. The rock is not above 150 or 200 yards in circumference,<sup>11</sup> and our adventurer swam round and examined it in all directions, but without meeting any inducement to prolong his stay. Accordingly, being satisfied there were no oysters, he thought of ascending to the surface of the water; but first he cast a look upwards, as all divers are obliged to do who hope to avoid the hungry jaws of a monster. If the coast is clear they may rise without any apprehension. Don Pablo, however, when he cast a hasty glance upwards, found that a prodigious tinterero had taken a station three or four yards immediately above him, and most probably had been watching during the whole time that he had been down. A double-pointed stick was a useless weapon against such a tinterero, as its mouth was of such enormous dimensions that both man and stick would be swallowed together. He therefore felt himself *rather nervous*, as his retreat was now completely intercepted.<sup>12</sup> But under water, time is too precious to be spent in reflection, and therefore he swam round to another part of the rock, hoping by this means to avoid the vigilance of his persecutor. What was his dismay, when he looked again, to find the pertinacious<sup>13</sup> tinterero still hovering over him, as a hawk would follow a bird! He described him as having large, round, and inflamed eyes, apparently just ready to dart from the sockets with eagerness, and a mouth (at the recollection of which he still shuddered) that was continually opening and shutting, as if the monster was already, in imagination, devouring his victim, or at least that the contemplation of his prey imparted a foretaste of the *gout*!<sup>14</sup> Two alternatives<sup>15</sup> now presented themselves to the mind of Don Pablo—one, to suffer himself to be drowned;



the other, to be eaten. He had already been under water so considerable a time that he found it impossible any longer to retain his breath, and was on the point of giving himself up for lost with as much philosophy<sup>16</sup> as he possessed. But what is dearer than life? The invention of man is seldom at a loss to find expedients for its preservation in cases of great extremity. On a sudden he recollected that on one side of the rock he had observed a sandy spot; and to this he swam with all imaginable speed—his attentive friend still watching his movements, and keeping a measured pace with him. As soon as he reached the spot, he commenced stirring it with his pointed stick, in such a way that the fine particles rose and rendered the water perfectly turbid, so that he could not see the monster, nor the monster him. Availing himself of the *cloud* by which himself and the tinterero were enveloped, he swam very far out in a transversal<sup>17</sup> direction, and reached the surface in safety, although completely exhausted. Fortunately, he rose close to one of the boats; and those who were within, seeing him in such a state, and knowing that an enemy must have been persecuting him, and that by some artifice he had saved his life, jumped overboard, as is their common practice in such cases, to frighten the creature away by splashing the water; and Don Pablo was taken into the boat more dead than alive."

<sup>1</sup> **Columbus.**—Discovered America, 1492.

<sup>2</sup> **Gulf of Panama.**—West of the Isthmus of Panama, between North and South America.

<sup>3</sup> **Graphic Account.**—Vivid description.

<sup>4</sup> **Technically called.**—In professional language.

<sup>5</sup> **Impetus.**—Acquired force.

<sup>6</sup> **Sensibly felt.**—Perceptible to the senses.

<sup>7</sup> **Involuntarily.**—Without any exercise of the will [*L. in*, not, *voluntas*, will].

<sup>8</sup> **Inspirations.**—Breathings.

<sup>9</sup> **Essayed.**—Tried, attempted.

<sup>10</sup> **Literally.**—Not figuratively, but really and most truly [*L. littera*, a letter; hence *literally true* means true to the letter].

<sup>11</sup> **Circumference.**—Measurement round.

<sup>12</sup> **Intercepted.**—Cut off.

<sup>13</sup> **Pertinacious.**—Obstinate; holding one's ground.

<sup>14</sup> **Gout.**—Taste, relish.

<sup>15</sup> **Alternative.**—Choice of one out of two; this one or the other [*L. alter*, the other].

<sup>16</sup> **Philosophy.**—Practical wisdom.

<sup>17</sup> **Transversal.**—Across the vertical; vertical, straight up and down.

## THE BULL-FIGHT.

The following poem by Lord Byron is a vivid description of the frightfully cruel and barbarous combat between man and beast, which in Spain is still, unhappily, considered a becoming spectacle for even the noblest ladies in the land.]

THE lists<sup>1</sup> are oped, the spacious area cleared,  
Thousands on thousands piled are seated round ;  
Long ere the first loud trumpet's note is heard,  
No vacant space for 'lated wight is found :  
Here dons, grandees, but chiefly dames abound,  
Skilled in the ogle of a roguish eye,  
Yet ever well inclined to heal the wound ;  
None through their cold disdain are doomed to die,  
As moon-struck bards complain, by Love's sad archery.

Hushed is the din of tongues—on gallant steeds,  
With milk-white crest, gold spur, and light poised lance,  
Four cavaliers prepare for venturous deeds,  
And lowly bending to the lists advance ;  
Rich are their scarfs, their chargers featly prance :  
If in the dangerous game they shine to-day,  
The crowd's loud shout and ladies' lovely glance,  
Best prize of better acts, they bear away,  
And all that kings or chiefs e'er gain their toils repay.

In costly sheen<sup>2</sup> and gaudy cloak arrayed,  
But all afoot, the light-limbed *matadore*<sup>3</sup>  
Stands in the centre, eager to invade  
The lord of lowing herds ; but not before  
The ground, with cautious tread, is traversed o'er,  
Lest aught unseen should lurk to thwart his speed :  
His arms a dart, he fights aloof, nor more  
Can man achieve without the friendly steed—  
Alas ! too oft condemned for him to bear and bleed.

Thrice sounds the clarion ; lo ! the signal falls,  
The den expands,<sup>4</sup> and expectation mute  
Gapes round the silent circle's peopled walls.  
Bounds with one lashing spring the mighty brute,  
And, wildly staring, spurns, with sounding foot,  
The sand, nor blindly rushes on his foe :  
Here, there, he points his threatening front, to suit  
His first attack, wide waving to and fro  
His angry tail ; red rolls his eyes' dilated<sup>5</sup> glow.

Sudden he stops ; his eye is fixed : away,  
 Away, thou heedless boy ! prepare the spear :  
 Now is thy time to perish, or display  
 The skill that yet may check his mad career,  
 With well-timed croupe<sup>a</sup> the nimble coursers veer ;  
 On foams the bull, but not unscathed he goes ;  
 Streams from his flank the crimson torrent clear :  
 He flies, he wheels, distracted with his throes ; [woes.  
 Dart follows dart ; lance, lance ; loud bellowings speak his

Again he comes ; nor dart nor lance avail,  
 Nor the wild plunging of the tortured horse ;  
 Though man and man's avenging arms assail,  
 Vain are his weapons, vainer is his force.  
 One gallant steed is stretched a mangled corse ;  
 Another, hideous sight ! unseamed appears,  
 His gory chest unveils life's panting source ;  
 Though death-struck, still his feeble frame he rears ;  
 Staggering, but stemming all, his lord unharmed he bears.

Foiled, bleeding, breathless, furious to the last,  
 Full in the centre stands the bull at bay,<sup>7</sup>  
 Mid wounds, and clinging darts, and lances brast,<sup>8</sup>  
 And foes disabled in the brutal fray :  
 And now the matadores around him play,  
 Shake the red cloak, and poise the ready brand :  
 Once more through all he bursts his thundering way—  
 Vain rage ! the mantle quits the conynge<sup>9</sup> hand,  
 Wraps his fierce eye—'tis past—he sinks upon the sand !

Where his vast neck just mingles with the spine,  
 Sheathed in his form the deadly weapon lies,  
 He stops—he starts—disdaining to decline :  
 Slowly he falls, amidst triumphant cries,  
 Without a groan, without a struggle dies.  
 The decorated car appears—on high  
 The corse is piled—sweet sight for vulgar eyes—  
 Four steeds that spurn the rein, as swift as shy,  
 Hurl the dark bulk along, scarce seen in dashing by.

<sup>1</sup> **The lists.**—The enclosure where the combat is to take place.

<sup>2</sup> **Sheen.**—Splendour, that which shines.

<sup>3</sup> **Matadore.**—The man who kills the bull.

<sup>4</sup> **The den expands.**—The place where the bull is confined opens up.

<sup>5</sup> **Dilated glow.**—Increased fiery look.

<sup>6</sup> **Croupe.**—The buttocks of a horse, which are turned aside just at the right moment.

<sup>7</sup> **At bay.**—Facing his foes, and standing ready to receive them.

<sup>8</sup> **Brast.**—Shivered.

<sup>9</sup> **Conynge.**—Old form of cunning.

**MEDUSÆ.**

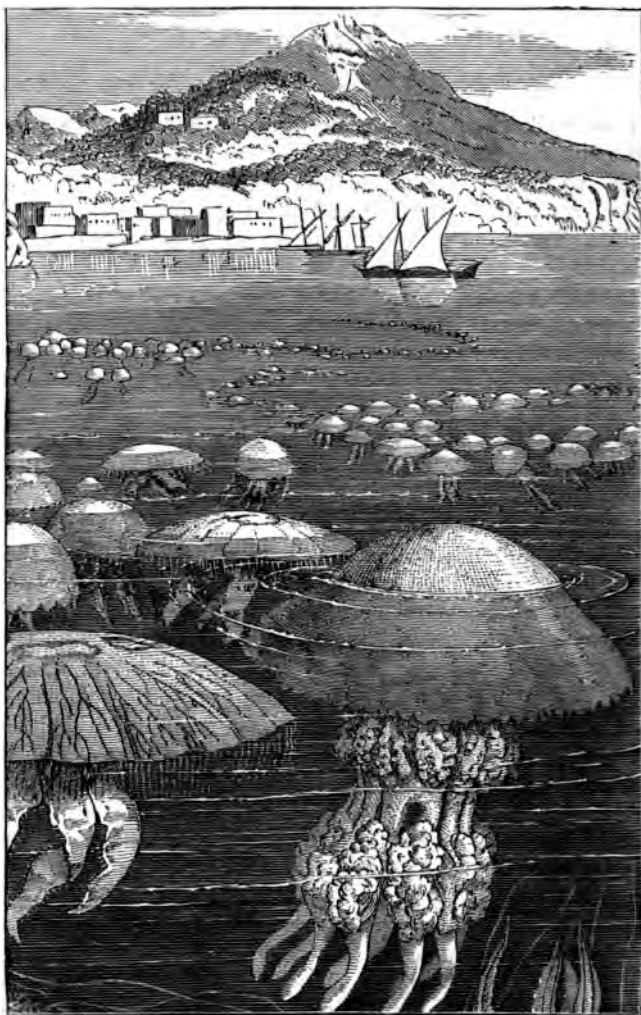
[*A vocabulary of the hardest words is given at the foot of the lesson.*]

IF we walk along the seashore after the reflux of the tide, we may often see, lying immovable upon the sand, gelatinous disc-like masses of a greenish colour and repulsive appearance, from which the eye and the steps instinctively turn aside. These beings, whose blubber-like appearance inspires only feelings of disgust when seen lying grey and dead on the shore, are, however, when seen floating on the bosom of the ocean, one of its most graceful ornaments. These are the Medusæ. When seen suspended in the middle of the waves, like a piece of gauze or an azure bell, terminating in delicate silvery garlands, we cannot but admire their iridescent colours, or deny that these objects, so forbidding in some of their aspects, rank, in their natural localities, among the most elegant productions of nature.

Floating on the bosom of the waters, the Medusa resembles a bell, an umbrella, or, better still, a floating mushroom, the stalk of which has been here separated into lobes more or less divergent, sinuous, twisted, shrivelled, fringed, the edges of the cap being delicately cut, and provided with long thread-like appendages, which descend vertically into the water like the drooping branches of the weeping willow.

The gelatinous substance of which the body of the Medusa is formed is sometimes as clear and colourless as crystal. In certain species the central parts are of a lively red, blue, or violet colour, whilst the rest of the body is transparent. This transparent tissue is so fragile, that when abandoned by the wave on the beach, it melts and disappears without leaving a trace behind.

Nevertheless, these fragile creatures, these living soap-bubbles, make long voyages on the surface of the sea. It is to their presence that the brilliant appearance of the sea during the night is sometimes due. These creatures are



continually in motion, and this they effect by an alternate expansion and contraction of the body. This action being similar to that of respiration in the human chest, the ancients called them *Sea Lungs*.

The Medusæ constitute, in the Arctic seas, one of the principal sources of the food of the whale. Their innumerable masses sometimes cover many square leagues in extent. The barks which navigate Lake Thau meet, at certain periods of the year, with numerous colonies of a species about the size of a small melon, nearly transparent, and whitish. One would be tempted to take these animals at first for a collection of floating muslin bonnets.

The Medusæ are furnished with a mouth, which is rarely unoccupied. Small molluscs and young crustaceans form their ordinary food. In spite of their soft substance, they are most voracious, and snap up their prey all at one mouthful, without dividing it. If its prey resists and disputes with it, the Medusa holds it fast in its grip, and remains motionless, waiting till its victim is thoroughly exhausted with its vain efforts to escape, and then it proceeds to devour its prey in calm security. Many of these animals possess a stinging apparatus, by which many a bather has been stung as if by a stinging-nettle, while plunging about in the sea.

We could not better conclude our account of this interesting creature, than by quoting the words of the poetic naturalist, Michelet: "Among the rugged rocks and lagoons, where the retiring sea has left many little animals which were too sluggish or too weak to follow it, some shells will be left there to themselves and suffered to become quite dry. In the midst of them, without shell and without shelter, extended at our feet, lies the animal which we call by the very inappropriate name of the *Medusa*. Why was this name, of terrible associations, given to a creature so charming? Often have I had my attention arrested by these castaways which we see so often on the shore. They are small, about the

size of my hand, but singularly pretty, of soft light shades, of an opal white, where it loses itself as in a cloud of tentacles. . . . The delicate creature had been left behind by its native element, the sea, and lay like a lifeless mass of trembling jelly. I paused, however beside it: I slipped my hand under it, raised the motionless body cautiously, and as it had become overturned by wind or wave, I restored it to its natural position for swimming. Putting it into the neighbouring water, it sank to the bottom, giving no sign of life. I pursued my walk along the shore, but at the end of ten minutes I returned to my Medusa, and saw it swimming about with singular grace, its hair flying around it as it swam."

[For a fuller description, *vide* Figuier's *Ocean World* (Cassell, Petter, and Galpin)].

<sup>1</sup> **Medusa**.—A name originally given to a fabulous being, whose hair was entwined with serpents, and whose appearance was so frightful that all who beheld were turned into stone.

<sup>2</sup> **Reflex**.—Flowing back [L. *re*, back, *fluere*, to flow].

<sup>3</sup> **Gelatinous**.—Like jelly.

<sup>4</sup> **Disc**.—Like a round plate lying on its face.

<sup>5</sup> **Instinctively**.—By a natural impulse or instinct.

<sup>6</sup> **Suspend**.—to hang one thing under another [L. *sub* under, *pendo*, to hang].

<sup>7</sup> **Azure**.—Of a faint blue.

<sup>8</sup> **Terminate**.—To end [L. *terminus*, end, limit. Hence *terminus* in English means the last station of a railway].

<sup>9</sup> **Iridescent**.—Coloured like the rainbow [Gr. *iris*, rainbow].

<sup>10</sup> **Lobe**.—The lower part of the ear, or something of that shape.

<sup>11</sup> **Divergent**.—Slanting outwards from a common point, like the spokes of a wheel.

<sup>12</sup> **Sinuous**.—Winding like the folds of a snake.

<sup>13</sup> **Appendage**.—One thing hanging on to a larger [L. *ad*, to, *pendo*, to hang].

<sup>14</sup> **Vertically**.—Straight up and down.

<sup>15</sup> **Crystal**.—A superior kind of glass.

<sup>16</sup> **Fragile**.—Delicate, frail, without solidity.

<sup>17</sup> **Alternate**.—First one and then the other [L. *alter*, the other].

<sup>18</sup> **Expansion**.—A spreading out [L. *ex* out, *pando*, to spread out].

<sup>19</sup> **Contraction**.—Drawing together [L. *con*, together, *tractus*, drawn].

<sup>20</sup> **Respiration**.—Act of breathing.

<sup>21</sup> **Constitute**.—To form, to compose.

<sup>22</sup> **Innumerable**.—Countless [L. *in*, not, *numerus*, to number].

<sup>23</sup> **Mollusc**.—A soft flabby animal in a shell or shells, such as an oyster.

<sup>24</sup> **Crustacea**.—An animal in a crust-like shell, such as a lobster or a crab.

<sup>25</sup> **Apparatus**.—Set of instruments or tools.

<sup>26</sup> **Lagoon**.—A shallow lake or pond into which the sea flows.

<sup>27</sup> **Inappropriate**.—Unsuitable.

<sup>28</sup> **Opal**.—A precious stone of a milky hue.

<sup>29</sup> **Tentacle**.—A thread-like appendage.

**THE CITY OF THE DEMONS.**

[This is a fictitious narrative abridged from that by WILLIAM MAGINN, born at Cork, 1793; died in London, 1842. Though the drapery of the story is fiction, a very wholesome truth may be learned by its perusal; for it shows in a very impressive way the final consequence of a life of selfishness.]

IN days of yore there lived in the flourishing city of Cairo<sup>1</sup> a Hebrew rabbi,<sup>2</sup> by name Jochonan, who was the most learned of his nation. His fame went over the East, and the most distant people sent their young men to imbibe<sup>3</sup> wisdom from his lips. He was deeply skilled in the traditions<sup>4</sup> of the fathers, and his word on a disputed point was decisive. He was pious, just, temperate, and strict; but he had one vice,—a love of gold had seized upon his heart, and he opened not his hand to the poor.

**THE WARNING.**

One day, as he walked in the fields about Cairo, conversing with a youth on the interpretation of the Law, it so happened that the angel of death smote the young man suddenly, and he fell dead before the feet of the Rabbi. When the Rabbi found that the youth was dead, he rent his garments and glorified the Lord. But his heart was touched, and the thoughts of death troubled him in the visions of the night. He felt uneasy when he reflected on his hardness to the poor, and he said, "Blessed be the name of the Lord! The first good thing that I am asked to do in that holy name will I perform without reward."

While yet he thought upon these things, there came a loud cry at his gate.

"Awake, thou sleeper!" said the voice: "awake! A child is in danger of death, and the mother hath sent me for thee, that thou mayest do thine office."

"The night is dark and gloomy," said the Rabbi, coming



to his casement, "and mine age is great. Are there not younger men than I in Cairo?"

"For thee only, Rabbi Jochonan, whom some call the wise, but others the miser, was I sent. Here is gold," said he; "I want not thy labour for nothing. I adjure<sup>5</sup> thee to come in the name of the living God."

So the Rabbi thought upon the vow he had just made, and he groaned in spirit, for the purse sounded heavy.

"As thou hast adjured me by that name, I go with thee; but I hope the distance is not far. Put up thy gold."

"The place is at hand," said the stranger, who was a gallant youth in magnificent attire. "Be speedy, for time presses."

Jochonan arose, dressed himself; carefully locked up all the doors of his house, and concealed the keys.

"I never remember," said the Rabbi, "so dark a night. Be thou to me as a guide, for I can hardly see the way."

"I know it well," replied the stranger with a sigh; "lean upon mine arm, and fear not."

They journeyed on through the darkness. When the darkness abated, the astonished Rabbi, lifting up his eyes, found that they had come to the gates of a city which he had never before seen. Yet he knew all the cities of the land of Egypt, and he had walked but half an hour from his dwelling in Cairo. So he knew not what to think, but followed the man trembling.

They soon entered the gates of the city, which was brilliantly lighted. The streets were full of the sounds of revelry; but the faces of the revellers were the faces of men pained within. Jochonan soon perceived, by the marks they bore, that they were demons. He cast his eye furtively<sup>6</sup> on his companion, and lo! he too wore the mark of a demon.<sup>7</sup> The Rabbi feared excessively, and quaked within; but he thought it best silently to follow his guide, who brought him to a splendid house in the most magnificent quarter of the city.

"Enter here," said the Demon to Jochonan, "for this house is mine. The lady and the child are in the upper chamber."

On ascending to the topmost room, the Rabbi beheld a lady, whose dazzling beauty was shrouded by hopeless melancholy, and on the lap of a nurse, by her side, a child in rich raiment. Jochonan was informed by the lady that she was a Jewess, who for some sin now dwelt in the city of the Demons, and that she had sent for him to admit her son into the company of the faithful, so that he might not share her unhappy fate. She also informed the terror-stricken man that he must have been guilty of some great sin to have fallen under the power of the Demons. The Rabbi protested that he had ever zealously walked in the precepts of the Law.

"Nay," said the lady, "there must be some great sin working in your heart, or you would not be here. And let me tell you, there is only one way of escape from this place of misery."

"What is that, O lady of beauty?" said the agonized Rabbi.

"Eat not, drink not, nor take fee or reward, while here. Have courage, and persevere."

#### THE TEMPTATION.

At this moment her husband, who had conducted the Rabbi thither, entered the room, and called upon him to do his duty. With a heavy heart he did for the child according to the Law. But when, at the conclusion of the ceremony, the wine was handed round to be tasted by the child, the mother, and the Rabbi, he refused it, saying,—

"Spare me, my lord, for I have made a vow that I fast this day; and I will eat not, neither will I drink."

"Be it as thou pleasest," said the Demon. "I will not that thou shouldst break thy vow,"—and he laughed aloud.

So the poor Rabbi was taken into a chamber, where he passed the remainder of the night and day, weeping and praying to the Lord for deliverance. At sunset the Demon returned, and set before him a dainty dish ; but he begged to be excused. Thus three days passed away, the dishes offered ever daintier, and the Rabbi's appetite ever keener. But by the grace of God the Rabbi was firm in his refusal.

Then the Demon took a torch in his hand, and led the Rabbi through winding passages of his palace to the door of a lofty chamber, which he opened with a key that he took from a niche in the wall. On entering the room, Jochonan saw that it was of solid silver,—floor, ceiling, walls, even to the threshold and the doorposts. And the curiously-carved roof and borders of the ceiling shone in the torchlight as if they were the fanciful work of frost. In the midst were heaps of silver money, piled up in immense urns of the same metal, even over the brim.

"Thou hast done me a serviceable act," said the Demon ; "take of these what thou pleasest—aye, were it the whole."

"I cannot, my lord," said Jochonan. "I was adjured by thee to come hither in the name of God, and in that name I came, not for fee or for reward."

"Follow me," said the Prince of the Demons ; and Jochonan did so into an inner chamber.

It was of gold, as the other was of silver. Its golden roof was supported by pillars and pilasters<sup>8</sup> of gold, resting upon a golden floor. The treasures of the earth would not purchase one of the four-and-twenty vessels of golden coins which were disposed in six rows along the room. The heart of Jochonan was moved by avarice<sup>9</sup> when he saw them shining in yellow light. But God enabled him to persevere.

"These are thine," said the Demon : "one of the vessels which thou beholdest would make thee richest of the sons of men."

But Jochonan refused again, and the Prince opened the door of a third chamber, which was called the Hall of

**Diamonds.** When the Rabbi entered, he uttered a cry of surprise, and put his hands over his eyes, for the lustre of the jewels dazzled him. In vases of agate<sup>10</sup> were heaped diamonds beyond numeration, the smallest of which was larger than a pigeon's egg. On alabaster<sup>11</sup> tables lay amethysts, topazes, rubies, beryls, and all other precious stones, wrought by the hands of skilful artists, beyond power of computation. This was a sore trial for the Rabbi ; but he was strengthened from above, and he refused again.

#### THE RESULT.

Far different from the other chambers, the one into which the Rabbi was next introduced was a mean and paltry apartment without furniture. On its filthy walls hung innumerable bunches of rusty keys of all sizes, disposed without order. Among them, to the astonishment of Jochonan, hung the keys of his own house, which he had so carefully concealed on leaving home.

"What dost thou see," said the Demon, "that makes thee look so eagerly? Can he who has refused silver, and gold, and diamonds, be moved by a paltry bunch of rusty iron?"

"They are mine own, my lord," said the Rabbi ; "them will I take, if they be offered me."

"Take them, then," said the Demon, putting them into his hand : "thou mayest depart. But, Rabbi, open not thy house only when thou returnest to Cairo, but thy heart also. That thou didst not open it before was that which gave me power over thee. It was well that thou didst one act of charity in coming with me without reward, for it has been thy salvation. Be no more Rabbi Jochonan the miser."

The Rabbi bowed to the ground, and blessed the Lord for his escape. "But how," said he, "am I to return? for I know not the way."

"Close thine eyes," said the Demon.

He did so, and in the space of a moment heard the same

voice ordering him to open them again. And behold, when he opened them, he was lying on his own bed in his house at Cairo, just as though he had spent the night at home.

When he had recovered from his surprise, and had offered thanksgivings to God, he opened his house and his heart also. He gave alms to the poor, he cheered the heart of the widow, and lightened the destitution of the orphan. His hospitable board was open to the stranger, and his purse was at the service of all who needed to share it. His life was a perpetual act of benevolence, and the blessings showered upon him by all were returned bountifully upon him by the hand of God.

<sup>1</sup> **Cairo**.—Capital of Egypt; on the Nile; the largest town in Africa.

<sup>2</sup> **Rabbi**.—A Jewish doctor or expounder of the Law.

<sup>3</sup> **Imbibe**.—To drink in [L. *bibo*, to drink].

<sup>4</sup> **Traditions of the Fathers**.—Opinions and practices of the ancients.

<sup>5</sup> **Adjure**.—To charge solemnly or on oath [L. *juro*, to swear].

<sup>6</sup> **Furtively**.—Stealthily [L. *furtum*, theft].

<sup>7</sup> **Demon**.—Evil spirit.

<sup>8</sup> **Pilasters**.—Small pillars. [*Aster* is a diminutive: that is, it expresses something little; as *poetaster*, a little poet.]

<sup>9</sup> **Avarice**.—Greediness for wealth.

<sup>10</sup> **Agate**.—A precious stone, semi-transparent.

<sup>11</sup> **Alabaster**.—A kind of white marble.

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### A SOLEMN THOUGHT.

" GOD is never so far off  
As even to be near :  
He dwells within,—our spirit is  
The home He holds most dear.

" To think of Him as by our side  
Is almost as untrue  
As to remove His throne beyond  
Those skies of starry blue.

" So all the while I thought myself  
Homeless, forlorn, and dreary,  
Missing my joy, I walked the earth  
Myself God's sanctuary."

### PARLIAMENT.

**PARLIAMENT** consists of two chambers, commonly called the House of Lords and House of Commons, and sometimes styled the Upper and Lower House respectively.

#### THE HOUSE OF LORDS.

The House of Lords is composed of the nobility of the land, who are called Peers, or equals, and of the Archbishops and Bishops of England. The Peers are styled Lords Temporal, and the Archbishops and Bishops Lords Spiritual. The Peers are divided into three classes, each of which holds a position in relation to Parliament different from that of the other two. The first class is composed of Peers who sit in their own right, either as heirs to the dignity of the Peerage or by virtue of having been created Peers by the Crown. The second class consists of sixteen Scotch Lords, elected by the Peers of Scotland to represent them during the Parliament then called; and the third class of twenty-eight Irish Lords, elected by the Peers of Ireland to represent them for life in successive Parliaments.

This distinction between the different Peers arises from the changes which have occurred from time to time in the relation existing between England, Ireland and Scotland. In former times, when the three portions of the United Kingdom had each its Parliament, the Peers of Scotland and Ireland sat in their own Houses of Lords; and when the Union was negotiated an arrangement was made by which the Peers of Scotland and the Peers of Ireland should be represented in the Parliament of the United Kingdom. It was accordingly agreed that the Scotch Peers should elect sixteen of their number for each Parliament, and only for the Parliament; and when the Union with Ireland was negotiated, it was settled that the Peers of

Ireland should elect twenty-eight of their number to represent them for life.

The following are the titles of Peers set down in their order of precedence :—Duke, Marquis, Earl, Viscount, and Baron. The title of Lord is common to all. But although all Peers may be addressed by the title of “Lord,” it must not be supposed that all persons who are styled “Lord” are Peers of Parliament, because the eldest sons of Dukes, Marquises, and Earls, sometimes bear by courtesy<sup>1</sup> the next inferior title conferred upon, or inherited by, their fathers, and are commonly known as Marquises, Earls, or Viscounts. For instance, the eldest son of the Duke of Buckingham is commonly styled the Marquis of Chandos. The younger sons of Dukes and Marquises also are styled by courtesy Lord John or Lord Henry, as the case may be. But these titles confer no Parliamentary privileges, and those who bear them are commoners in the eye of the law, as are all subjects of the Crown save Peers only.

The number of Peers composing the House of Lords is not fixed ; it amounts to about 460, but it is liable to decrease by the death of Peers without heirs, and to increase by the creation of new Peers. Peers who are minors,<sup>2</sup> or imbecile, or bankrupt, do not sit in the House of Lords. In former times the Kings of England conferred the dignity of the peerage upon subjects as often from caprice, or favouritism, as from any other cause ; but now the dignity is conferred by the Sovereign on the advice of the Ministers of the Crown, and is generally bestowed upon men who have done distinguished service to the State either as politicians,<sup>3</sup> men of letters,<sup>4</sup> or lawyers, or as great military or naval commanders. The House of Lords is thus composed of the most distinguished men in the country, or the descendants of those, who, in their day, had made themselves famous by rendering distinguished service to the State.

The Lord Chancellor<sup>5</sup> presides over the House of Lords, and when acting in this capacity he is styled the Speaker

of the House of Lords. It is not necessary that he should be a Peer, but he is usually created a Peer on his appointment, and being so, he has a right to join in debate and to vote in the same way as any other Peer; but he has no casting vote when upon a division the numbers are found to be equal. When the House is sitting upon ordinary occasions, the Lord Chancellor takes his place upon the woolsack, wearing a full bottom wig and a plain black silk gown. The woolsack may be described as a large ottoman, stuffed with wool. It is supposed that this was the kind of seat used by the president of the most ancient councils held in England, and that it was so used in order to remind the people of the importance of cultivating wool as an article of merchandise. This seat is not, strictly speaking, in the House; so that when the Lord Chancellor, being a Peer, wishes to exercise his right to address the House irrespective of his position as Lord Chancellor, he advances three steps forward. He puts all questions to the House upon which a vote has to be taken, but it is no part of his duty to keep order or control the House, because the Peers do not acknowledge that any one of their number is superior to the rest; they are all Peers or equals.

#### THE HOUSE OF COMMONS.

The House of Commons is composed of the representatives of the third estate of the realm, the Commons, chosen according to law. It numbers 658 members, 404 of whom represent cities and boroughs, and 254 counties. England and Wales send 500, Scotland 53, and Ireland 105. These members are chiefly composed of country gentlemen, members of the learned professions, and successful merchants and manufacturers, who, either by their personal talents, social position, or wealth, have been able to inspire the electors of some portion of the country with confidence. Many of them are the sons and heirs of Peers, and some are Peers of Ireland who have been returned by English constituencies. The



Marquis of Hartington, son of the Duke of Devonshire, is an instance of the former; the late Lord Palmerston is an instance of the latter. Unlike the House of Lords, the House of Commons consists entirely of these elected members. No one has a seat by prescriptive<sup>6</sup> right, and none but those elected are allowed to enter the chamber on any pretext whatever, except a few appointed officers.

Upon the day appointed for election, every elector who chooses attends at one of the places appointed, which are called "polling places," and there records his vote for the candidate he desires should represent him. In due time the returning officer adds up the number of votes polled by each candidate, and declares those having the largest number to be elected. In most cases where the candidates outnumber the seats possessed by a borough or county, each candidate employs a number of agents, who go from house to house asking the electors to vote for their employer, and urging reasons for doing so. Electors should not require this; they should make themselves acquainted with the qualifications of candidates without being canvassed, not only because the practice of canvassing leads to much unnecessary expense, but because it tempts the uneducated elector to regard his power to vote as a piece of property, which may be sold, rather than as imposing a duty to be discharged. Some electors, although they would refuse a bribe in money for their vote, often seek to obtain some advantage to themselves or their friends in exchange for it. Promises of personal advantage, however, are as much bribes as payment of money, and equally dishonourable; and those who are influenced in voting by motives of gain of any sort show themselves to be enemies to their country and undeserving of good government. So also those who seek to influence voters by improper means, by promises of advancement, or by threats of harm in the future, and those who use any means to hinder electors from voting freely, all do grievous harm to the country. Laws have accordingly been made

from time to time to punish those who misconduct themselves in this way, and on each occasion the law has been amended the punishment has been made more severe. Each elector should regard the vote he possesses as a trust, and remember that in voting he is bound to discharge that trust for the public good,—that, in fact, he is as responsible to the country for the motives which influence him in giving his vote as is any Member of Parliament for any vote he may give in the House of Commons itself.

Formerly, it was necessary that a man should possess a certain amount of property to qualify him to sit in Parliament; but now any one may be a member of the House of Commons who can induce a constituency<sup>7</sup> to return him, except an alien,<sup>8</sup> a minor, one mentally imbecile, a peer, a minister of the Established Churches of England and Scotland or a priest of the Roman Catholic Church, a judge other than the Master of the Rolls, a Government contractor other than a loan contractor, a bankrupt, and persons attainted<sup>9</sup> of treason or felony, who are as dead in law.

But inasmuch as attendance at the sittings of the House of Commons occupies a great deal of time, no one who has to earn his livelihood can afford to accept the position, because members of the House of Commons do not receive any pay whatever for any service they may render as members of Parliament, either by sitting and voting in the House or by sitting on Committees. Still the position is much coveted, because of the social distinction it carries with it, and the influence in the State which it confers. The position also carries with it its peculiar temptations. The votes of members of the House of Commons are often anxiously solicited in respect of certain measures called "private bills," which are promoted by persons who hope to benefit by them. Such persons would be not unwilling to give money for a vote if they thought such a bribe would be accepted; and on this account it is held to be inexpedient

that men of small means should to any great extent be induced to enter the House of Commons. Certainly, if we think only of what is desirable, we should all agree that every member of Parliament should be a paragon<sup>10</sup> of honour, be perfectly secure from the influence of all baser motives, and never give a vote in favour of any measure unless he believes it will confer good upon the country.

Not only has the property qualification of members of Parliament been abolished, but changes have been made from time to time in the description of persons who are entitled to vote for Members of Parliament (commonly called the electoral qualification), in the number and character of the places represented (commonly called the constituencies), and in the number of members each constituency should return. These changes constitute what is called the Reform of Parliament, and are embodied in Reform Bills. The necessity for these reforms arises out of changes which are daily occurring throughout the country. Places which were once small villages, having no right to return a member, gradually grow into large towns; and large towns having that right lose their importance, from some cause or other, and decrease in population. When this is found to be the case, the right to return the members is transferred from the decaying town to the flourishing community.—[From *The British Constitution and Government*, by F. Wicks (published in the Holborn Series).]

<sup>1</sup> **By courtesy.**—Not by their own right, but by the politeness of other people.

<sup>2</sup> **Minors.**—Persons under twenty-one years of age.

<sup>3</sup> **Politicians.**—Men versed in politics, or the art of carrying on the government of a nation.

<sup>4</sup> **Men of letters.**—Learned or literary men.

<sup>5</sup> **The Lord Chancellor.**—He is the chief lawyer in the land, just as the Arch-

bishop of Canterbury is the chief clergyman.

<sup>6</sup> **Prescriptive right.**—A right acquired by long or immemorial usage.

<sup>7</sup> **A constituency.**—The whole body of electors in a county or borough.

<sup>8</sup> **An alien.**—A foreigner.

<sup>9</sup> **Attainted of treason.**—Convicted of disloyalty, or of an attempt to harm the sovereign or overthrow the government.

<sup>10</sup> **A paragon.**—A pattern or model.

## ADVANTAGES OF TRUTH.

[TILLOTSON, born 1630, rose to be Archbishop of Canterbury. His *Sermons*, which, on account of his great celebrity as a divine, were purchased by a bookseller for no less than 2500 guineas, have ever since been admired as models of correct and elegant composition.]

TRUTH and reality have all the advantages of appearance, and many more. If the show of anything be good for anything, I am sure sincerity<sup>1</sup> is better : for why does any man dissemble,<sup>2</sup> or seem to be that which he is not, but because he thinks it good to have such a quality as he pretends to?—for to counterfeit and dissemble is to put on the appearance of some real excellency. Now, the best way in the world for a man to seem to be anything, is really to be what he would seem to be. Besides that, it is many times as troublesome to make good the pretence of a good quality as to have it ; and if a man have it not, it is ten to one but he is discovered to want it, and then all his pains and labour to seem to have it are lost. There is something unnatural in painting, which a skilful eye will easily discern from native beauty and complexion.

It is hard to personate and act a part long ; for where truth is not at the bottom, Nature will always be endeavouring to return, and will peep out and betray herself one time or other. Therefore, if any man think it convenient to seem good, let him be so indeed, and then his goodness will appear to everybody's satisfaction ; so that, upon all accounts, sincerity is true wisdom. Particularly as to the affairs of this world, integrity hath many advantages over all the fine and artificial ways of dissimulation<sup>3</sup> and deceit : it is much the plainer and easier, much the safer and more secure way of dealing in the world ; it has less of trouble and difficulty, of entanglement and perplexity, of danger and hazard in it ; it is the shortest and nearest way to our end, carrying us thither in a straight line, and will hold out and last longest. The arts of deceit and cunning do con-

tinually grow weaker, and less effectual and serviceable to them that use them, whereas integrity gains strength by use; and the more and longer any man practiseth it, the greater service it does him, by confirming his reputation, and encouraging those with whom he hath to do to repose the greatest trust and confidence in him, which is an unspeakable advantage in the business and affairs of life.

Truth is always consistent with itself, and needs nothing to help it out; it is always near at hand, and sits upon our lips, and is ready to drop out before we are aware; whereas a lie is troublesome, and sets a man's invention upon the rack, and one trick needs a great many more to make it good. It is like building upon a false foundation, which continually stands in need of props to shore it up, and proves at last more chargeable than to have raised a substantial building at first upon a true and solid foundation; for sincerity is firm and substantial, and there is nothing hollow or unsound in it, and because it is plain and open, fears no discovery: of this the crafty man is always in danger; and when he thinks he walks in the dark, all his pretences are so transparent that he that runs may read them. He is the last man that finds himself to be found out; and whilst he takes it for granted that he makes fools of others, he renders himself ridiculous.

Add to all this, that sincerity is the most compendious wisdom, and an excellent instrument for the speedy despatch of business; it creates confidence in those we have to deal with, saves the labour of many inquiries, and brings things to an issue in few words; it is like travelling in a plain, beaten road, which commonly brings a man sooner to his journey's end than by-ways, in which men often lose themselves. In a word, whatsoever convenience may be thought to be in falsehood and dissimulation, it is soon over; but the inconvenience of it is perpetual, because it brings a man under an everlasting jealousy and suspicion, so that he is not believed when he speaks truth, nor trusted perhaps

when he means honestly. When a man has once forfeited the reputation of his integrity, he is set fast, and nothing will then serve his turn, neither truth nor falsehood.

And I have often thought that God hath, in His great wisdom, hid from men of false and dishonest minds the wonderful advantages of truth and integrity to the prosperity even of our worldly affairs. These men are so blinded by their covetousness and ambition, that they cannot look beyond a present advantage, nor forbear to seize upon it, though by ways never so indirect; they cannot see so far as to the remote consequences of a steady integrity, and the vast benefit and advantages which it will bring a man at last. Were but this sort of men wise and clear-sighted enough to discern this, they would be honest out of very knavery—not out of any love to honesty and virtue, but with a crafty design to promote and advance more effectually their own interests; and therefore the justice of the Divine Providence hath hid this truest point of wisdom from their eyes, that bad men might not be upon equal terms with the just and upright, and serve their own wicked designs by honest and lawful means.

Indeed, if a man were only to deal in the world for a day, and should never have occasion to converse more with mankind, never more need their good opinion or good word, it were then no great matter—speaking as to the concernments of this world—if a man spent his reputation all at once, and ventured it at one throw: but if he be to continue in the world, and would have the advantage of conversation whilst he is in it, let him make use of truth and sincerity in all his words and actions; for nothing but this will last and hold out to the end: all other arts will fail, but truth and integrity will carry a man through, and bear him out to the last.

<sup>1</sup> **Sincerity.**—The appearance of being what a thing really is.

<sup>2</sup> **Dissemble.**—To disguise—to put on a false appearance.

<sup>3</sup> **Disimulation.**—Act of dissembling

<sup>4</sup> **Most compendious wisdom.**—The wisest and shortest course.

## ADAM AND EVE'S MORNING HYMN.

[JOHN MILTON, born in Bread Street, London, 1608, died 1674. Next to Shakspeare he is the greatest of our English poets. His chief work is an epic poem under the title of *Paradise Lost*; but the poet himself gave the preference to his *Paradise Regained*. Among his minor poems, *L'Allegro*, *Il Penseroso*, and the *Ode to the Nativity*, are remarkable for their sweetness and beauty. The following may serve as a specimen of the sublime poetry in his greatest work.]

THESE are thy glorious works, Parent of good,  
 Almighty ! Thine this universal frame,  
 Thus wondrous fair: Thyself how wondrous then !  
 Unspeakable,<sup>1</sup> who sit'st above these heavens  
 To us invisible, or dimly seen  
 In these thy lowest works ; yet these declare  
 Thy goodness beyond thought, and power divine.  
 Speak, ye who best can tell, ye sons of light,  
 Angels ; for ye behold him, and with songs  
 And choral<sup>2</sup> symphonies, day without night,  
 Circle his throne rejoicing ; ye, in Heaven:  
 On Earth join all ye creatures to extol,  
 Him first, him last, him midst, and without end.  
 Fairest<sup>3</sup> of stars, last in the train of night,  
 If better thou belong not to the dawn,  
 Sure pledge of day, that crown'st the smiling morn  
 With thy bright circlet, praise him in thy sphere  
 While day arises, that sweet hour of prime.<sup>4</sup>  
 Thou Sun, of this great world both eye and soul,  
 Acknowledge him thy greater ; sound his praise  
 In thy eternal course, both when thou climb'st  
 And when high noon hast gain'd, and when thou fall'st.  
 Moon, that now meet'st the orient<sup>5</sup> Sun, now fly'st,  
 With the fix'd<sup>6</sup> stars, fix'd in their orb that flies ;  
 And ye five other wandering<sup>7</sup> fires, that move  
 In mystic dance not without song, resound  
 His praise, who out of darkness call'd up light.  
 Air, and ye elements,<sup>8</sup> the eldest birth  
 Of Nature's womb, that in quarternion<sup>9</sup> run  
 Perpetual<sup>10</sup> circle, multiform ; and mix  
 And nourish all things ; let your ceaseless change  
 Vary to our great Maker still new praise.  
 Ye mists and exhalations,<sup>11</sup> that now rise  
 From hill or steaming lake, dusky, or gray,  
 Till the Sun paint your fleecy skirts with gold,

In honour to the world's great Author rise ;  
 — Whether to deck the clouds, the uncolour'd sky,  
 Or wet the thirsty Earth with falling showers,  
 Rising or falling still advance his praise.  
 His praise, ye winds, that from four quarters blow,  
 Breathe soft or loud ; and wave your tops, ye pines,  
 With every plant, in sign of worship wave.  
 Fountains, and ye that warble as ye flow  
 Melodious murmurs, warbling tune his praise.  
 Join voices, all ye living souls: ye birds,  
 That singing up to Heaven's gate ascend,  
 Bear on your wings and in your notes his praise.  
 Ye that in waters glide, and ye that walk  
 The earth, and stately tread, or lowly creep ;  
 Witness if I be silent, morn or even,  
 To hill, or valley, fountain, or fresh shade,  
 Made vocal by my song, and taught his praise.  
 Hail, universal<sup>1</sup> Lord, be bounteous still  
 To give us only good ; and if the night  
 Have gather'd aught of evil or conceal'd,  
 Disperse it, as now light dispels the dark !

<sup>1</sup> **Unspeaking.**—God is too wonderful to be described.

<sup>2</sup> **Choral symphonies.**—Musical performances in chorus.

<sup>3</sup> **Fairest of stars.**—Venus, one of the most brilliant of stars, which frequently appears as the *Morning Star*, that is, as the last to fade at dawn.

<sup>4</sup> **Prime.**—The first hour of the day [L. *primus*, first. Hence a thing is said to be *prime* when it is of the first or highest quality].

<sup>5</sup> **Orient.**—Rising. As the sun rises in the East; *orient* generally means eastern, and *oriental* relating to the east.

<sup>6</sup> **The fix'd stars.**—All the stars except the planets are so called, because they seem to keep the same relative position.

<sup>7</sup> **Five other wandering fires.**—The planets: a word meaning wandering, and so called because they seem to wander among the other stars; in reality,

each moves round the sun, like the earth, in a regular, even course. In the time of Milton only five planets were known, but since his time two other large ones and a host of small ones have been discovered. (*Vide* Lesson on the Planets, page 202.)

<sup>8</sup> **Ye elements.**—The ancients thought that all things in the universe consisted in some form or other of air, earth, fire, or water, which received the name of the four elements.

<sup>9</sup> **Quarternion.**—A group of four, being the supposed number of elements.

<sup>10</sup> **Perpetual circle.**—A never-ceasing round; *multiform*, in many forms [L. *multus*, many].

<sup>11</sup> **Exhalations.**—The vapours that ascend in the early morning; so called because the earth seems to breathe them out [L. *ex*, out, *halo*, to breathe].

<sup>12</sup> **Universal Lord.**—The Lord of all [L. *Universus*, whole. Hence the *universe* is the whole creation].





**AUSTRIAN POLAR EXPEDITION.**

**MOST** of the leading nations of the world have vied with each other in attempting to reach the North Pole. One of the most successful of the numerous expeditions engaged in polar discovery was fitted out under the auspices<sup>1</sup> of the Austrian Government. The *Tegethoff* left Bremerhafen<sup>2</sup> on the 13th of June, 1872. About the middle of July it reached North Cape, and turning to the north-east, fell in with "pack ice" a few days later. Aided by steam-power, the vessel fought its way through, and reached the coast of Nova Zembla, about the parallel of 75°. Here, on August 31st, the ship became frozen in. Attempts were made, both by sawing and blasting with gunpowder, to effect its release; but all efforts were in vain, owing to the rapidity with which the pieces sawn asunder froze together again.

Preparations were therefore made for passing the winter. The deck was covered with snow, an awning was spread from the mainmast forward, and a rampart of ice raised as a protection round the ship. A watch was kept on deck for the approach of Polar bears, whose flesh formed an important article of diet. Exercise was regularly taken by the crew, a school was kept, and indoor games played as a pastime. In October a new danger arose from the enormous pressure of the ice on all sides, which threatened day after day to crush the vessel. The *Tegethoff* was forced up by the first squeeze, and thrown on her beam; but though colossal<sup>3</sup> masses of ice pressed upon her on all sides, and though she was subject to this severe treatment almost daily for four months, she passed through the ordeal whole and uninjured. All this time the vessel was slowly drifting with the ice-floe<sup>4</sup> in which it was locked towards the north-east.

As summer approached, the solar heat became intense, and the crew were encouraged to make fresh efforts to free their ship from the ice. But though they toiled manfully

for four months to saw through the floe, all their exertions were fruitless, for other floes having forced themselves underneath, the ice had attained a thickness of forty feet.

In the meantime they were generally travelling north or north-east, for though their vessel was stationary in the ice, the ice itself was in motion. The drifting of the ice, it appears, was not owing to currents, but to winds; and these usually blew from the south or south-west. The situation of the crew, nevertheless, was very dispiriting: they had spent one inactive winter, and there was every prospect of another one; but on the last day of August they were equally astonished and delighted at seeing before them the appearance of a mountainous country, about fourteen miles to the north, which the mist had up to that time concealed from view. The situation of the crew was tantalising<sup>5</sup>: there was the unknown land close to them, which it was not in their power to reach, as their ship was driven about with the ice-floe at the caprice of the wind. At length, towards the end of October, the vessel was carried within three miles of the shore, and there it became fixed for the winter. The sun had now wholly disappeared, and did not again rise above the horizon for 125 days. The position of this, their second winter quarters, was found by astronomical observation<sup>6</sup> to be in lat.  $79^{\circ} 51'$  north, and long.  $58^{\circ} 56'$  east.

In the month of March, 1874, a party of seven men and three dogs, under command of Lieutenant Payer, started off with sledges to explore the new land, which has received the name of Franz-Joseph Land. It was found to consist of a group of islands, some very rugged and mountainous, the valleys often filled with huge glaciers.<sup>7</sup> All was covered with a mantle of white—even the face of the steep cliffs, which were always powdered with frost. The cold at first was intense. At night they slept in fur coats, but during the day they preferred clothes made of the skins of birds. Cold, however, was not their chief hardship: thirst was still more painful to bear. They were often obliged to thaw

frozen snowballs in their clasped hands, and then suck the half-melted snow. The longest sledge journey occupied thirty days, and the most northerly point reached was in lat.  $82^{\circ} 5'$ .

During the journey some of the party had a narrow escape from destruction. Payer had sent back four men who had become unfit to prosecute the journey; whilst himself, with Orel and a sailor and two dogs, struggled further northwards. Payer, the sailor, and the dogs were harnessed in front of the sledge, while Orel pushed behind. On the sledge lay the provisions for eight days, and a tent. They pulled up for their mid-day meal in the midst of a labyrinth<sup>8</sup> of glaciers in which icebergs<sup>9</sup> towered by hundreds. After dinner the death-braving band set in motion again. Scarcely, however, had they progressed twenty paces—Orel just turned back to see that none of the baggage remained behind—when a thundering crash shook the air; men, sledges, and dogs had disappeared, and Orel found himself alone in the circle of glaciers. He was not long in finding out that they had fallen into a crevasse.<sup>10</sup> Orel at once flung himself on his face and hands, and crawled on all fours to the edge of the crevasse; there he saw Payer lying at a depth of two fathoms on the other side of the crevasse, still attached to the sledge by a girth, and the sledge itself jammed in the crevasse far down, whilst from a greater depth still resounded the moaning of the sailor and the whimper of the dogs dangling at the end of the line. Orel threw Payer a pocket-knife, to cut through the girth and free himself. They called down to the sailor that he must under no circumstances sit down, otherwise torpor would be inevitable and death certain. Then they ran at a racing pace in their stockings after the men that had been sent back, procured from them ropes and poles, and returned with the Tyrolese Klotz to the scene of the accident. Two tent-poles were laid over the crevasse, the Tyrolese slid down and fetched up the sailor, the dogs, and the sledge,

Nothing daunted, the brave fellows resumed their journey northward, and found a good road over new ice. Traces of bears, hares, and foxes were met with everywhere; seals reposed sluggishly upon the ice; and the rocks were covered with thousands of auks<sup>11</sup> and divers. Climbing a rocky promontory, and looking northward, the explorers saw open water for a considerable distance. "From a height we looked down upon the dark sheet of open water, dotted with icebergs like so many pearls. Heavy clouds hung in the sky, through which penetrated glowing rays of the sun, causing the water to sparkle; and above was reflected the image of another sun, but of a paler hue."

The journey back to the ship was not without its hardship and anxiety. On reaching Austria Sound, which separates two main portions of Franz-Joseph Land, they found that the ice had broken up, and it was only after wandering about for two days during a fearful snow-storm that they managed to get round the open water which shut off their return. They were now afraid that, as the ice was beginning to break up, their ship might be drifted away from the spot at which they left it; but happily they reached the vessel in safety.

On the 20th of May they came to the determination to abandon the ship and make their way as best they might to Nova Zembla.<sup>12</sup> Provisions and ammunition for three or four months were packed in boats placed on sleighs, and in three large sledges; and nailing the flags to the masts of the *Tegethoff*, the crew with heavy hearts left it. The return journey was excessively fatiguing. The same distance was sometimes travelled over five or six times, as it required the united strength of the whole party to drag a boat or a sledge through the deep snow. Persistent southerly winds, moreover, drove the ice over which they were travelling to the north; and after two months of incessant labour they were not more than eight miles from the ship.

At length, about the middle of July, northerly winds set

in, which dispersed the ice to some extent, whilst heavy rains melted it; and a month later they reached the edge of the pack, in lat.  $77^{\circ} 4'$ . Here the crew abandoned their sledges, and took to their boats. Favoured by the wind, they succeeded in reaching Nova Zembla, and following the coast to the south, they were picked up by a Russian vessel and taken to Norway, which they reached on the 3rd of September (1874). Their return through Germany to Austria was a triumphal procession.

<sup>1</sup> **Under the auspices.**—With the help and countenance.

<sup>2</sup> **Bremerhafen.**—At the mouth of the Weser.

<sup>3</sup> **Colossal.**—Gigantic. [The *Colossus* was a gigantic statue of bronze, situated at Rhodes and 90 feet in height.]

<sup>4</sup> **Ice-floe.**—A floating field of ice.

<sup>5</sup> **Tantalising.**—Teasing by presenting a desired object just within reach and then withdrawing it just beyond. [*Tantalus*, a fabulous being who was punished in the lower world by being afflicted with a raging thirst, and at the same time placed near the margin of a lake whose waters always receded as he was going to drink.]

<sup>6</sup> **Astronomical Observation.**—This consists in ascertaining the position of particular stars. The pole-star, for in-

stance, enables the traveller to determine his latitude (distance from the equator): to a person at the equator the pole-star is on the horizon, to a person  $10^{\circ}$  north of the equator it is  $10^{\circ}$  above the horizon, and so on; and if the pole were reached it would be  $90^{\circ}$  above the horizon—that is, immediately overhead.

<sup>7</sup> **Glacier.**—A field of ice on land.

<sup>8</sup> **Labyrinth.**—A maze.

<sup>9</sup> **Iceberg.**—A towering mass of ice [berg, a mountain].

<sup>10</sup> **Crevasse.**—A deep, wide crack (in the ice).

<sup>11</sup> **Auk.**—A kind of duck in appearance; in habits it resembles the penguin.

<sup>12</sup> **Nova Zembla.**—An island in the Arctic Ocean, north of Russia.

## A WONDERFUL STORY.

[This is a tale of the imagination about a man who is supposed to have slept on a mountain for twenty years, and then to revisit his native village, which, to his surprise, he finds inhabited by a new generation. It is abridged from a tale written by WASHINGTON IRVING, a famous American writer of this century.]

### VAN WINKLE AT HOME.

WHOEVER has made a voyage up the Hudson<sup>1</sup> must remember the Kaatskill mountains. At their foot the voyager may have descried the light smoke curling up from a village, whose shingle roofs gleam among the trees, just where the blue tints of the upland melt away into the fresh green of the nearer landscape.

In this same village there lived many years since, while

the country was yet a province of Great Britain, a simple good-natured fellow, of the name of Rip Van Winkle. He was blessed with a termagant<sup>2</sup> wife, under whose discipline he acquired the virtues of patience and long-suffering. He was a great favourite among all the children of the village. He assisted at their sports, made their playthings, taught them to fly kites and shoot marbles, and told them long stories of ghosts.

The great error in Rip's composition was an insuperable aversion<sup>3</sup> to all kinds of profitable labour. It could not be for the want of assiduity or perseverance; for he would sit on a wet rock, with a rod as long and as heavy as a Tartar's lance, and fish all day without a murmur, even though he should not be encouraged by a single nibble. He would carry a fowling-piece on his shoulder for hours together, trudging through woods and swamps, and up hill and down dale, to shoot a few squirrels or wild pigeons. He would never even refuse to assist a neighbour in the roughest toil; indeed, Rip was ready to attend to everybody's business but his own. He was one of those happy mortals, of foolish, well-oiled disposition, who take the world easy, eat white bread or brown, whichever can be got with least thought or trouble, and would rather starve on a penny than work for a pound. No wonder that his wife kept continually dinning in his ears about his idleness, his carelessness, and the ruin he was bringing on his family. Rip's sole domestic adherent and companion in idleness was his dog Wolf, who was as much henpecked as his master. The moment Wolf entered the house, his crest fell, his tail drooped to the ground or curled between his legs, he sneaked about with a gallows air,<sup>4</sup> casting many a sidelong glance at Dame Van Winkle, and, at the least flourish of a broomstick or ladle, would flee to the door with yelping precipitation.

#### VAN WINKLE AT THE INN.

Times grew worse and worse with Rip Van Winkle as

years of matrimony rolled on ; a tart temper never mellows with age, and a sharp tongue is the only edge-tool that grows keener by constant use. For a long while he used to console himself, when driven from home, by frequenting a kind of perpetual club of the sages, philosophers, and other idle personages of the village, that held its sessions on a bench before a small inn, designated by a rubicund portrait of his majesty George III. Here they used to sit in the shade, of a long lazy summer's day, talk listlessly over village gossip, or tell endless sleepy stories about nothing. But it would have been worth any statesman's money to have heard the profound discussions that sometimes took place, when by chance an old newspaper fell into their hands from some passing traveller.

The opinions of this junto<sup>5</sup> were completely controlled by Nicholas Vedder, a patriarch of the village, and landlord of the inn, at the door of which he took his seat from morning till night, just moving sufficiently to avoid the sun and keep in the shade of a large tree ; so that the neighbours could tell the hour by his movements as accurately as by a sundial. It is true he was rarely heard to speak, but smoked his pipe incessantly. His adherents, however (for every great man has his adherents), perfectly understood him, and knew how to gather his opinions. When anything that was read or related displeased him, he was observed to smoke his pipe vehemently, and send forth short, frequent, and angry puffs ; but when pleased, he would inhale the smoke slowly and tranquilly, and emit it in light and placid clouds, and sometimes taking the pipe from his mouth, and letting the fragrant vapour curl about his nose, would gravely nod his head in token of perfect approbation.

From even this stronghold the unlucky Rip was at length routed by his justly indignant wife. "The poor easy fool," as she called him, found it necessary to wander further from home to be secure from his wife's intrusion.



## VAN WINKLE ON THE MOUNTAIN.

Poor Rip, to escape from the labour of the farm and the clamour of his wife, would often take gun in hand, and stroll away into the woods with his four-footed companion. In a long ramble on a fine autumnal day, Rip had unconsciously scrambled to one of the highest parts of the Kaatskill mountains.

As he was about to descend, he heard a voice from a distance hallooing, "Rip Van Winkle! Rip Van Winkle!" At the same time Wolf bristled up his back, and giving a low growl, skulked to his master's side, looking fearfully down into the glen. Rip felt a vague apprehension<sup>6</sup> stealing over him; he looked down anxiously in the same direction, and perceived a strange figure slowly toiling up the rocks, and bending under the weight of something he carried on his back. The stranger made signs for Rip to approach and assist him with the load, which turned out to be a stout keg full of liquor. Though rather shy and distrustful of this new acquaintance, Rip complied with his usual alacrity, and mutually relieving each other, they clambered up a narrow gully, and came to a hollow like a small amphitheatre,<sup>7</sup> surrounded by perpendicular precipices, over the brinks of which impending trees shot their branches, so that you only caught glimpses of the azure sky and the bright evening cloud. During the whole time Rip and his companion had laboured on in silence, for there was something strange and incomprehensible about the unknown, that inspired awe and checked familiarity.

On entering the amphitheatre, new objects of wonder presented themselves. On a level spot in the centre was a company of odd-looking personages playing at ninepins. As Rip and his companion approached them, they suddenly desisted from their play, and stared at him with such a fixed statue-like gaze, and such strange, uncouth, lack-lustre

countenances, that his heart turned within him, and his knees smote together. His companion now emptied the contents of the keg into large flagons, and made signs to him to wait upon the company. He obeyed with fear and trembling; they quaffed the liquor in profound silence, and then returned to their game.

By degrees Rip's awe and apprehension subsided. He even ventured, when no eye was fixed upon him, to taste the beverage, which he found had much of the flavour of excellent Hollands.<sup>8</sup> He was naturally a thirsty soul, and was soon tempted to repeat the draught. One taste provoked another, and he reiterated his visits to the flagon so often that at length his senses were overpowered, his eyes swam in his head, his head gradually declined, and he fell into a deep sleep.

#### VAN WINKLE ON AWAKING.

On awaking, our hero found himself on the green knoll from whence he had first seen the old man of the glen. He rubbed his eyes—it was a bright sunny morning. The birds were hopping and twittering among the bushes, and the eagle was wheeling aloft and breasting the pure mountain breeze. "Surely," thought Rip, "I must have slept here all night." With an anxious heart Rip turned his steps homeward, wondering what excuse he should make to Dame Van Winkle.

As he approached the village he met a number of people, but none whom he knew. They all stared at him with surprise, and invariably stroked their chins. The constant recurrence of this gesture<sup>9</sup> induced Rip involuntarily to do the same, when to his astonishment he found his beard had grown a foot. He had now entered the outskirts of the village. A troop of strange children ran at his heels, hooting after him, and pointing at his grey beard. The dogs, too, not one, of which he recognised for an old acquaintance, barked at

him as he passed. The whole village was altered : strange names were over the doors, strange faces at the windows,—everything was strange. It was with some difficulty that he found the way to his own house, which he approached with silent awe, expecting every moment to hear the shrill voice of Dame Van Winkle. He found the house gone to decay—the roof fallen in, the windows shattered, and the doors off the hinges. A half-starved dog that looked like Wolf was skulking about. Rip called him by name, but the cur snarled, showed his teeth, and passed on. This was an unkind cut indeed. “My very dog,” sighed poor Rip, “has forgotten me.”

A crowd collected round the strange old man, curious to know who he was, and whence he came. His story was soon told, for though he had been asleep for twenty years, the whole time seemed to him but as one night. All stood amazed and incredulous.

At this moment, Peter Vanderdonk was seen slowly advancing up the road. He was the most ancient inhabitant of the village. He recollected Rip at once, and corroborated his story in the most satisfactory manner. He assured the company that it was well known the Kaatskill mountains had always been haunted by strange beings, and that, in particular, the great Hudson, the first discoverer of the river and country, kept a kind of festival there every twenty years, with his crew of the *Half-moon*.

<sup>1</sup> **Hudson.**—River in the United States, at the mouth of which stands New York.

<sup>2</sup> **Termagant.**—Boisterous, brawling.

<sup>3</sup> **Insuperable aversion.**—A dislike he could not overcome [*L. in*, not, *super*, over].

<sup>4</sup> **A gallows air.**—The bearing and look of a convict condemned to the gallows—*i.e.*, to be hanged.

<sup>5</sup> **Junto.**—A body of men joined or united for some scheme of their own.

<sup>6</sup> **Vague apprehension.**—Fear of an

indefinite kind ; an uncertain kind of dread, arising from ignorance of the cause.

<sup>7</sup> **Amphitheatre.**—A theatre in the form of an oval or circle, whereas a theatre generally occupies only half a circle or oval [*Gr. amphi*, both].

<sup>8</sup> **Hollands.**—A kind of gin made in Holland.

<sup>9</sup> **Recurrence of this gesture.**—Repetition of this movement with the hand.

**COLDS.**

*[From a lecture delivered by Dr. E. Symes Thompson, F.R.C.S.]*

**CATCHING COLD.**

WHAT is called "catching cold" is really "losing heat"; cold or catarrh being occasioned by the loss of the natural heat of the body, whether abstracted by getting wet, sleeping in damp sheets, or being exposed to currents of cold air. In a normal condition we lose by insensible perspiration<sup>1</sup> through the skin a quart of water every day. Any sudden exposure to cold is liable to close the pores of the skin, inducing what is commonly called the "goose-flesh" condition; and this quart of fluid, not finding its natural outlet, has to escape by the mucous membrane or inner skin of the body.

In addition to the fluid continually given off through the pores of the skin, a great deal of gas also passes off, when the body is in a state of health, in the same way; and it is the confinement of that gas which more especially gives rise to the phenomena<sup>2</sup> which result from catching cold. It is the retention of that poisonous gas in the blood which gives rise to the characteristic feeling of lassitude, drowsiness, and feverishness; and were it not for the provision by which it is also able to escape eventually by the inner skin, the result would be poisoning and loss of life. The normal function<sup>3</sup> of the mucous membrane is to secrete<sup>4</sup> only the necessary lubricating materials<sup>5</sup>; but when it has also to carry off the gas and fluid which ought to escape by the outer skin, every function of the body is disturbed.

The first discomfort is the increased escape of fluid by the eyes, nose, and mouth, which ought to pass insensibly through the skin; but the consequences of the cessation of its action are also often manifested in rheumatic attacks,

sore throats, bronchial affections,<sup>6</sup> inflammation of the lungs, toothache, neuralgia, or derangement of the digestive organs, according to the predisposition of the person affected.

#### PREVENTION OF A COLD.

"Prevention," we all know, "is better than cure,"—but it is possible to catch cold by being too anxious to avoid the evil. Too much fear of catching cold, and the dread of the least exposure to cold air, is likely to bring about that tender, hothouse-plant condition in which a person is more than ordinarily liable to catch cold. Exposure to moderately cold air outdoors seldom does harm. It is draughts indoors, coming with great rapidity through small openings, which are to be carefully shunned. A Portuguese proverb says, with a great deal of truth, "If you catch cold from a draught through a keyhole, you had better make your will."

Living constantly in very impure air makes people very sensitive to cold, and ill-ventilated bedrooms have much to answer for in this respect. It is a mistake to suppose that night air, except in *aguish*<sup>7</sup> places, is obnoxious. In London, night air is purer than air in the day; and, indeed, in most parts of the country it is advisable, while avoiding a direct draught, to keep the bedroom window slightly opened. The effect of want of ventilation is strikingly illustrated in the case of horses. When left to run in the fields they are hardy, and rarely catch cold; but cooped up in warm stables they become very sensitive to cold and prone to serious and fatal affections of the chest. That is a lesson to us to keep our bedrooms cool and well ventilated.

In clothing, the great thing is to vary the character and amount according to the season and weather. As a rule, we might imitate with advantage, in cold weather, the example of the Russians and Canadians, who are careful to put on very warm outer clothing when leaving the house, and to remove it the moment they come in.

## CURING A COLD.

Of the curative treatment for colds, what is called the "dry method" was at one time much in vogue. This consists in abstaining from all fluids for twenty-four, thirty-six, or forty-eight hours; and when rigorously followed at the outset, the cold is generally arrested. This treatment, however, is not to be recommended but to those in thoroughly good health, for in the delicate or the sickly the derangement of the vital organs, especially the liver and the digestive organs, by this abstention from fluids, brings about evils more serious than the cold.

Another method is the maintenance of an equable warm temperature; and when this can be done, the skin is soon restored to a more natural condition and the evil removed. The mucous lining, however, can be more rapidly relieved by inducing the skin to perspire copiously, and if this were done at the outset the cold would be checked. This can be done by a hot bath; or, very much better, by a Turkish bath, as by the latter method a very high temperature can be sustained without much discomfort. The hot bath at home, however, can be accompanied with other remedies. Spirits, though they lower instead of raising the temperature, when foolishly taken by a person before going outdoors on a cold night, "just to keep the cold out," are admissible in the form of a "nightcap," for the treatment of cold. Mixed with hot water and nutmeg, spirits—rum especially—have great power of promoting perspiration, and therefore relieving cold.

Certain drugs have a similar effect: *ether* especially, when taken in small and repeated doses of two drops to a teaspoonful of water every ten minutes; *camphor*, which ought to be taken with great caution, as even the tincture<sup>8</sup> is sometimes so strong that half a teaspoonful might produce a fatal effect; and *sal-ammoniac*, a very useful remedy for cold, as it promotes a glow on the surface of the skin, and relieves

that influenza-like condition which is so exhausting and prostrating.

<sup>1</sup> **Insensible perspiration.**—Sweat passing off without being noticed.

<sup>2</sup> **Phenomena** (the plural of *phenomenon*).—Things observed to take place in nature; and these in the case of a cold are said to be "lassitude" (weakness and weariness), "drowsiness, and feverishness."

<sup>3</sup> **Normal function.**—The office it has to discharge as a general rule [*L. norma*, a rule].

<sup>4</sup> **Secrete.**—To separate, to draw off.

<sup>5</sup> **Lubricating materials.**—What is

required for making the joints smooth and slippery; thus, grease is the *lubricating material* for making a wheel turn smoothly.

<sup>6</sup> **Bronchial affections.**—Disordered state of the tubes connected with the lungs.

<sup>7</sup> **Aguish places.**—Cold, damp places, producing ague—a kind of fever attended with shivers.

<sup>8</sup> **Tincture.**—A solution of a drug, which is of course much weaker than the drug itself.

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## THE EQUALITY OF THE GRAVE.

THE glories of our blood and state  
Are shadows, not substantial things;  
There is no armour against fate;  
Death lays his icy hand on kings;  
Sceptre and crown  
Must tumble down,  
And in the dust be equal made  
With the poor crooked scythe and spade.

Some men with swords may reap the field,  
And plant fresh laurels when they kill;  
But their strong nerves at last must yield;  
They tame but one another still:  
Early or late,  
They stoop to fate,  
And must give up their murmuring breath,  
When they, pale captives, creep to death.

The garlands wither on your brow,—  
Then boast no more your mighty deeds;  
Upon Death's purple altar now  
See, where the victor-victim bleeds:  
Your heads must come  
To the cold tomb,—  
Only the actions of the just  
Smell sweet, and blossom in their dust.

JAMES SHIRLEY (1659).

### CONQUEST OF MEXICO.

COLUMBUS had opened the door of the New World to the Spaniards, and left them on the threshold. They continued making such progress in exploring its unknown regions that, at the end of twelve years after his death, they had sailed along the eastern coast of America from Florida to the Rio de la Plata. They had also crossed the isthmus of Panama, and stood on the shores of the great Southern Ocean. Meanwhile, the English had sailed along the coast of North America from Labrador to Florida.

The natives of America were, for the most part, in a state of primeval simplicity. There were only two nations—namely, Mexico and Peru—that had emerged from the rude ignorance of barbarism. These two nations, fortunately for themselves, remained unknown to Europeans twenty-six years from the discovery of America. Mexico was the first to fall a prey to the bold, unscrupulous Spaniards, who had crossed the Atlantic in quest of fame and fortune.

In April, 1518, Velasquez, the Governor of Cuba, planned an expedition for the conquest of Mexico, and placed it under the command of Hernando Cortes, a Spanish hidalgo, or gentleman, residing in the island. The desire of planting the cross in heathen lands, and the lust of gold, seem to have been the two chief motives which prompted the Spaniards to all their enterprises in the New World. Cortes, under this double influence, succeeded in attracting about four hundred adventurers to his standard. Nothing was now to be seen or spoken of but selling lands to purchase arms and horses, quilting coats of mail, making biscuits, and salting pork for sea-store. Cortes, being in danger of losing his command through the jealousy of Velasquez, set sail with all speed, his own ship carrying at the mast-head a standard of gold and velvet, on which were embroidered the royal arms of Spain, and a cross with a Latin motto bearing this



meaning,—“Brothers, follow this holy cross with true faith, for under it we shall conquer.” Nothing is more surprising in the history of the world than the deeds of blood and cruelty committed under the cloak of religion and in the name of the Prince of Peace. According to the notions of the age, it seemed right to Cortes and his freebooters to take by any means, fair or foul, the property and lands of the heathen. But, in truth, they were entering upon a most unjust and merciless war of aggression, in which Might was the only measure of Right.

Cortes landed with his troops near the site of the modern Vera Cruz (April, 1519), and astonished the natives with the sight of his horses and the sound of his guns, both of which were equally new and terrible to them. Cortes had an interview with the Mexican governor of the district, and required him to inform the king Montezuma that the white men who had landed on his coast desired to come and see him in his capital. Though the capital was 180 miles distant, yet in a few days magnificent presents arrived from the king: cotton stuffs of delicate texture, pictures of natural objects formed with feathers of different colours, and two large circular plates—one of massive gold, representing the sun, the other of silver, an emblem of the moon. As Cortes could not obtain the royal permission he sought, he determined to advance without it; but before setting out from his camp he laid the foundations of the town of Vera Cruz, where he left a sufficient force, as a garrison, to secure a place of retreat in case he needed it. And finding that a conspiracy had been formed by some of his soldiers and sailors to seize a vessel and return to Cuba, he prevailed upon the majority of his men to render such a design for ever afterwards impracticable by the destruction of his fleet. With almost universal consent the ships were drawn ashore, and after being stripped of everything that might be of use, broken in pieces. By this resolute and almost unparalleled step five hundred men were shut up in a hostile country,

filled with powerful and unknown nations, with no resource but their own valour and power of endurance.

Four months after disembarking, Cortes set out on his march inland. His army consisted of 400 Spaniards on foot, and fifteen horse, accompanied by 1300 warriors of a friendly tribe of natives. A few days' march brought the invaders to the small mountain and province of Tlascala, situated about half-way between the seacoast and the capital. The Tlascalans were a warlike race, but after three battles they had not succeeded in killing a single Spaniard. Arrows and spears headed with flint or fish-bone, stakes hardened in the fire, and wooden swords, though destructive weapons among native Indians, could hardly penetrate the quilted jackets which the Spaniards wore. Before beginning the combat on their first encounter, the Tlascalans sent to the camp of their enemies a large supply of poultry and maize, desiring them to eat plentifully, "because they scorned to attack an enemy enfeebled by hunger; and it would be an affront to their gods to offer them famished victims, as well as disagreeable to themselves to feed on men in such emaciated condition." On finding their enemies invincible, they agreed to assist them in their war with Montezuma.

Resuming their march towards the capital, and descending from the mountains, they beheld the lovely plain of Mexico spread out like some gay and gorgeous panorama before them. In the centre they saw with rapturous delight a large lake, whose banks were studded with towns and hamlets, and upon an island near the middle the fair city of Mexico, with its white towers and pyramidal temples. As they approached the city their amazement increased. One of the strangest sights that attracted their attention was the *chinampas*, or floating gardens—little islands consisting of mould laid on rafts planted with flowers, shrubs, and fruit trees, and containing a small cottage in the centre occupied by the proprietor, who, by means of a long pole,

could shift his little domain along the margin of the lake. The islet on which Mexico was built was connected with the mainland by three distinct causeways of stone, intersected at intervals by drawbridges.

As Cortes approached, ambassadors from the king invited him to enter his capital ; and on arriving at the gate of the city he was met by the monarch himself seated on a palanquin blazing with burnished gold, under a canopy of gaudy featherwork powdered with jewels and fringed with silver. The Mexican monarch resembled an Oriental despot, and in the eyes of his subjects was almost a divine being. His nobles entered his apartment barefooted, their eyes fixed on the ground, and making three bows ; on approaching his seat they addressed him as " Lord, my Lord, great Lord."

The Spaniards were conducted to their quarters in the middle of the city adjoining the temple of the great war-god. This temple was afterwards visited by Cortes and his companions : arrived at the summit of the tower, they shuddered at the sight of a block of jasper on which they were told human victims were laid when the priests tore out their hearts as an offering to the gods. And before the idol of the war-god they saw a pan of incense, with five human hearts burning. " The priests," we are told, " were dressed in long black mantles, like sheets with hoods ; their long hair was matted together with clotted blood ; their ears were slit, and they smelt horribly as it were of sulphur and putrid flesh."

The further fortunes of the Spaniards must be told in few words. Montezuma was seized, and kept as a prisoner in the Spanish quarters. Through him Cortes ruled for some months in the kingdom of Mexico. In June, 1520, the usurper received a strong reinforcement from Cuba, raising his army to 1300 men. The Aztecs or Mexicans, driven to despair, rose in arms against the stranger in their midst, and fought with increasing energy day after day for a whole week. The Spaniards, fearing total destruction, attempted

to leave the city under cover of the night, but as the Aztecs had taken the precaution to break down all the drawbridges, only 500 contrived to escape, with the loss of artillery, fire-arms, and ammunition.

Five months after their expulsion from Mexico, the Spaniards were again on the march towards it. In May, 1521, the siege commenced, and by the aid of famine the city was taken at the end of three months. The surviving inhabitants soon disappeared from the city, which was now in ruins, like some vast cemetery with the corpses disinterred and the tombstones scattered about. The whole country was now lying helpless under the heel of the conqueror.—[Dawe's *Landmarks of General History*, published by Collins & Sons.]

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### TO A SKYLARK.

HAIL to thee, blithe spirit !  
Bird thou never wert,  
That from heaven, or near it,  
Pourest thy full heart,  
In profuse strains of unpremeditated<sup>1</sup> art.

Higher still and higher  
From the earth thou springest ;  
Like a cloud of fire  
The blue deep thou wingest,  
And singing still dost soar, and soaring ever singest.

In the golden lightning  
Of the sunken sun,  
O'er which clouds are brightening,  
Thou dost float and run ;  
Like an unbodied Joy whose race is just begun.

The pale purple even  
Melts around thy flight ;  
Like a star of heaven  
In the broad daylight,  
Thou art unseen, but yet I hear thy shrill delight.

Keen as are the arrows<sup>2</sup>  
Of that silver sphere,  
Whose intense lamp narrows  
In the white dawn clear,  
Until we hardly see, we feel that it is there.

All the earth and air  
With thy voice is loud,  
As, when night is bare,  
From one lonely cloud  
The moon rains out her beams, and heaven is overflowed.

What thou art we know not ;  
What is most like thee ?  
From rainbow clouds there flow not  
Drops so bright to see,  
As from thy presence showers a rain of melody.

Like a poet hidden  
In the light of thought,  
Singing hymns unbidden,  
Till the world is wrought  
To sympathy with hopes and fears it heeded not:

Like a high-born maiden  
In a palace tower,  
Soothing her love-laden  
Soul in secret hour  
With music sweet as love, which overflows her bower:

Like a glow-worm golden  
In a dell of dew,  
Scattering unbeholden  
Its ærial hue  
Among the flowers and grass, which screen it from the view:

Like a rose embowered  
In its own green leaves,  
By warm winds deflowered,  
Till the scent it gives  
Makes faint with too much sweet these heavy-winged thieves.

Sound of vernal showers  
On the twinkling grass,  
Rain-awakened flowers,  
All that ever was  
Joyous and clear and fresh, thy music doth surpass.

Teach us, sprite or bird,  
What sweet thoughts are thine:  
I have never heard  
Praise of love or wine  
That panted forth a flood of rapture<sup>4</sup> so divine.

Chorus hymeneal,<sup>5</sup>  
Or triumphal chant,  
Matched with thine would be all  
But an empty vaunt—  
A thing wherein we feel there is some hidden want.

What objects are the fountains  
Of thy happy strain?  
What fields, or waves, or mountains?  
What shapes of sky or plain?  
What love of thine own kind! what ignorance of pain!

With thy clear keen joyance  
Languor cannot be;  
Shadow of annoyance  
Never came near thee:  
Thou lovest; but ne'er knew love's sad satiety.<sup>6</sup>

Waking or asleep,  
Thou of death must deem  
Things more true and deep  
Than we mortals dream,  
Or how could thy notes flow in such a crystal stream?

We look before and after,  
And pine for what is not:  
Our sincerest laughter  
With some pain is fraught;  
Our sweetest songs are those that tell of saddest thought.

Yet if we could scorn  
Hate, and pride, and fear;  
If we were things born  
Not to shed a tear,  
I know not how thy joy we ever should come near.

Better than all measures  
Of delightful sound,  
Better than all treasures  
That in books are found,  
Thy skill to poet were, thou scorner of the ground!

Teach me half the gladness  
That thy brain must know,  
Such harmonious madness  
From my lips would flow,  
The world should listen then, as I am listening now.

SHELLEY.

<sup>1</sup> **Unpremeditated.** — Not thought over beforehand [*un*, not, *pro*, before, *meditated*, thought over].

<sup>2</sup> **The arrows, etc.** — The rays of light of the moon.

<sup>3</sup> **Heavy-winged thieves.** — The warm winds. [delight.

<sup>4</sup> **A flood of rapture.** — A stream of

<sup>5</sup> **Chorus hymeneal.** — Music at a wedding.

<sup>6</sup> **Satiety.** — (*Sat-ty*) fulness.

### CONQUEST OF PERU.

THREE years after the conquest of Mexico a single ship, under the command of Francisco Pizarro, set sail from Panama on a voyage of discovery along the west coast of South America. After a long series of disasters Pizarro had the good fortune to discover the wealthy country of Peru (A.D. 1526). Having collected a band of ruffianly fellows, he invaded the shores of the unwarlike Peruvians, and found everywhere gold and silver in abundance, forming not merely the ornaments of the people, but in the houses of the affluent common utensils for domestic uses.

At the time of the Spanish invasion the *inca*, or emperor, ruled over a territory extending 1500 miles along the Pacific Ocean. The incas were not only obeyed as monarchs, but almost revered as divinities. Their seat of government was Cuzco, founded according to tradition in the eleventh century by Manco Capac, the first of the incas.

When Pizarro first landed, a civil strife was raging between two brothers for the crown, which enabled him to gain an easy footing in the country. The contest had just been decided in favour of Atahualpa, when Pizarro directed his march to Caxamarca, near which the inca was encamped with his victorious troops. Pizarro's force consisted of 62 horsemen and 102 foot soldiers. Before he had proceeded

far an ambassador from the inca met him, with valuable presents and assurances of a friendly reception at Caxamarca. On entering the city, Pizarro took possession of a large court, on one side of which was the inca's palace, and on the other a temple of the sun, the whole surrounded with a strong rampart of earth. Pizarro resolved to adopt the policy of Cortes, and to seize the unsuspecting inca when he came according to promise to pay the strangers a visit at Caxamarca.

The next day the monarch arrived in great state to welcome his unbidden guests to his kingdom. First appeared 400 men as an advanced guard, in a uniform dress. The inca, sitting on a gorgeous throne, was carried on the shoulders of his principal attendants; and the whole plain was covered with troops, amounting to 10,000 men. As Atahualpa drew near the Spanish quarters, a monk advanced with a crucifix in one hand and a breviary in the other, and after explaining to the inca some of the doctrines of Christianity, he proceeded to inform him that the Pope had granted all the regions of the New World to the King of Spain. The monk then graciously promised the astonished monarch that if he would become a Christian he should rule in the name of the Spanish king. Atahualpa observed that he did not understand how the Pope could give away what did not belong to him, and that he had no intention of changing his religion. On desiring to know where the priest learned things so extraordinary, he was referred to the breviary. The inca opened it eagerly, and turning over the leaves, lifted it to his ear. "This," he said, "is silent; it tells me nothing,"—and threw it with disdain to the ground.

The enraged monk, turning to his countrymen, cried out, "To arms!" At once the martial music struck up, the cannon and muskets began to fire, the horse sallied out fiercely to the charge, and the infantry rushed on, sword in hand. The Peruvians, astonished and dismayed, fled on every side, except a small knot of nobles that gathered round their



king, and sacrificed their lives in his defence. Pizarro forced his way to the royal seat, and seizing the inca by his arm, dragged him off as a prisoner to his quarters. The fate of the monarch increased the consternation of the fugitives, who were ruthlessly cut down by the pursuing Spaniards.

The royal captive, who was confined in an apartment twenty-two feet in length and sixteen feet in breadth, offered, as the price of his liberty, to fill it with vessels of gold as high as he could reach. Pizarro closed eagerly with this marvellous proposal, and a line was drawn upon the walls of the room, to mark the stipulated height to which the treasure was to rise. The king sent messengers throughout his dominions, and golden vessels continued to arrive day after day ; but before the entire amount could be obtained the soldiers demanded their share of the booty, and so all except some species of curious workmanship, were melted down and apportioned. The perfidious Spaniards, instead of releasing their captive, thought it more expedient to execute him, and to proclaim one of his sons as his successor.

Pizarro having been joined by fresh forces, marched on to Cuzco, the capital. After many fierce encounters, the Spaniards forced their way into the city, and found there still greater treasures than they had already received as Atahualpa's ransom. By the capture of the capital the conquest of Peru was virtually achieved (A.D. 1533). Pizarro, not approving of Cuzco as the seat of government, laid the foundations of a new city on the river Ramic, which, under the name of Lima, is still the capital of Peru. So great was the discord that now arose between Pizarro and the other Spanish chiefs, that the Peruvians had the satisfaction of seeing them turn their swords against one another. At length (A.D. 1541) Pizarro was slain by conspirators who burst into his palace during the siesta at mid-day, crying out, "Long live the king ! but let the tyrant die."—[Dawe's *Landmarks of General History*, published by Collins and Sons.]

## THE FUGITIVE SLAVE.

[Most people have read or heard of *Uncle Tom's Cabin*, from which the following narrative is taken. It was written by Mrs. BEECHER STOWE at a time when slavery was recognised in some of the States of America, and was designed to excite the sympathies of her free fellow-citizens in favour of the poor blacks, by painting in the darkest colours the inhuman cruelties perpetrated by the slave-trader, and the shocking degradation of the slaves under any ordinary master.]

"I'M running away, Uncle Tom and Aunt Chloe—carrying off my child. Master has sold him!"

"Sold him!" echoed both, lifting up their hands in dismay.

"Yes, sold him!" said Eliza, firmly: "I crept into the closet by mistress's door to-night, and I heard master tell missis that he had sold my Harry, and you, Uncle Tom, both, to a trader; and that he was going off in the morning on his horse."

"The good Lord have pity on us!" said Aunt Chloe. "O! it don't seem as if it was true! What has he done, that mas'r should sell *him*?"

"He hasn't done anything; it isn't for that. Master don't want to sell; and missis—she's always good. I heard her plead and beg for us; but he told her 'twas no use; that he was in this man's debt, and that if he didn't pay him off clear, it would end in his having to sell the place and all the people, and move off. Yes, I heard him say there was no choice between selling these two and selling all, the man was driving him so hard.

"And now," said Eliza, as she stood in the door, "I saw my husband only this afternoon, and I little knew then what was to come. Do try, if you can, to get word to him. Tell him how I went, and why I went; and tell him I'm going to try and find Canada. You must give him my love, and tell him, if I never see him again,"—she turned away and stood with her back to them for a moment, and then added

in a husky voice,—“tell him to be as good as he can, and try and meet me in the kingdom of heaven.”

A few last words and tears, a few simple adieus and blessings, and, clasping her wondering and affrighted child in her arms, she glided noiselessly away.

#### THE FLIGHT.

It is impossible to conceive of a human creature more wholly desolate and forlorn than Eliza, when she turned her footsteps from Uncle Tom's cabin. But stronger than all other feelings combined was her maternal love, wrought into a paroxysm of frenzy by the near approach of a fearful danger. Her boy was old enough to have walked by her side, and in an indifferent case she would only have led him by the hand ; but now the bare thought of putting him out of her arms made her shudder, and she strained him to her bosom with a convulsive grasp as she went rapidly forward.

The frosty ground creaked beneath her feet, and she trembled at the sound ; every quaking leaf and fluttering shadow sent the blood backward to her heart, and quickened her footsteps. She wondered within herself at the strength that seemed to come upon her ; for she felt the weight of her boy as if it had been a feather, and every flutter of fear seemed to increase the supernatural power that bore her on, while from her pale lips burst forth, in frequent ejaculations, the prayer to a Friend above—“Lord, help me ! Lord, save me !”

Meanwhile the child slept—his little sleepy head on her shoulder, the small, soft arms trustingly holding on to her neck. At first the novelty and alarm kept the child waking ; but his mother so hurriedly repressed every breath or sound, and so assured him that if he were only still she would certainly save him, that he clung quietly round her neck, only asking, as he found himself sinking to sleep,—

“Mother, I don't need to keep awake, do I ?”

“No, my darling ; sleep, if you want to.”

"But, mother, if I do get asleep, you won't let him get me?"

"No; so may God help me!" said his mother, with a paler cheek and a brighter light in her dark eyes.

"You're *sure*, ain't you, mother?"

"Yes, *sure*!" said the mother, in a voice that startled herself; for it seemed to her to come from a spirit within, that was no part of her; and the boy dropped his little weary head on her shoulder, and was soon asleep. How the touch of those warm arms, the gentle breathings that came on her neck, seemed to add fire and spirit to her movements! It seemed to her as if strength poured into her in electric streams from every gentle touch and movement of the sleeping, confiding child. Sublime is the dominion of the mind over the body, that for a time can make flesh and nerve impregnable, and string the sinews like steel, so that the weak become mighty.

The boundaries of the farm, the grove, the wood, passed by her dizzily, as she walked on; and still she went, leaving one familiar object after another, slacking not, pausing not, till reddening daylight found her many a long mile from all traces of any familiar objects upon the open highway.

She had often been with her mistress to visit some friends in the little village of T——, not far from the Ohio river, and knew the road well. To go thither, to escape across the Ohio, were the first hurried outlines of her plan of escape: beyond that, she could only hope in God.

When horses and vehicles began to move along the highway, with that alert perception peculiar to a state of excitement, and which seems to be a sort of inspiration, she became aware that her headlong pace and distracted air might bring on her remark and suspicion. She therefore put the boy on the ground, and, adjusting her dress and bonnet, she walked on at as rapid a pace as she thought consistent with the preservation of appearances. In her little bundle she had provided a store of cakes and apples,

which she used as expedients for quickening the speed of the child, rolling the apple some yards before them, when the boy would run with all his might after it ; and this ruse, often repeated, carried them over many a half-mile.

After a while they came to a thick patch of woodland, through which murmured a clear brook. As the child complained of hunger and thirst, she climbed over the fence with him ; and sitting down behind a rock which concealed them from the road, she gave him a breakfast out of her little package. The boy wondered and grieved that she could not eat ; and when, putting his arms round her neck, he tried to wedge some of his cake into her mouth, it seemed to her that the rising in her throat would choke her.

"No, no, Harry darling ! mother can't eat till you are safe ! We must go on—on—till we come to the river !" And she hurried again into the road, and again constrained herself to walk regularly and composedly forward. She was many miles past any neighbourhood where she was personally known. As she was also so white as not to be known as of coloured lineage without a critical survey, and her child was white also, it was much easier for her to pass on unsuspected.

On this presumption she stopped at noon at a neat farmhouse to rest herself, and buy some dinner for her child and herself ; for, as the danger decreased with the distance, the supernatural tension of the nervous system lessened, and she found herself both weary and hungry. The good woman of the house, kindly and gossiping, seemed rather pleased than otherwise with having somebody come in to talk with ; and accepted, without examination, Eliza's statement that she "was going on a little piece, to spend a week with her friends,"—all which she hoped in her heart might prove strictly true.

An hour before sunset she entered the village of T—, by the Ohio river, weary and footsore, but still strong in

heart. Her first glance was at the river, which lay, like Jordan, between her and the Canaan of liberty on the other side.

#### LIBERTY OR DEATH.

It was now early spring, and the river was swollen and turbulent; great cakes of floating ice were swinging heavily to and fro in the turbid waters. Owing to the peculiar form of the shore on the Kentucky side, the land bending far out into the water, the ice had been lodged and detained in great quantities, and the narrow channel which swept round the bend was full of ice, piled one cake over another, thus forming a temporary barrier to the descending ice, which lodged, and formed a great, undulating raft, filling up the whole river, and extending almost to the Kentucky shore.

Eliza stood, for a while, contemplating this unfavourable aspect of things, which she saw at once must prevent the usual ferry-boat from running, and then turned into a small public-house on the bank, to make a few inquiries.

The hostess, who was busy in various fizzing and stewing operations over the fire, preparatory to the evening meal, stopped, with a fork in her hand, as Eliza's sweet and plaintive voice arrested her.

"Isn't there any ferry, or boat, that takes people over to B—— now?" she said.

"No, indeed!" said the woman; "the boats have stopped running. But there's a man, who will be here presently, that is going across to-night if it is any way prudent. So you had better sit down and wait. That's a sweet little fellow," added the woman, offering him a cake. But the child, wholly exhausted, cried with weariness.

"Poor fellow! he isn't used to walking, and I've hurried him on so," said Eliza.

"Well, take him into this room," said the woman, opening the door of a small bedroom, where stood a comfortable bed.

Eliza laid the weary boy upon it, and held his hands in hers till he was fast asleep. For her there was no rest. As a fire in her bones, the thought of the pursuer urged her on ; and she gazed with longing eyes on the sullen, surging waters, with their freight of ice, that lay between her and liberty.

The slave-trader who had purchased her son was indeed fast approaching. About three-quarters of an hour after Eliza had laid her child to sleep in the village tavern her pursuer came riding into the same place. Eliza was standing at the window, when her quick eye caught a glimpse of the dreaded object. A thousand lives seemed to be concentrated in that one moment to Eliza. Her room opened by a side-door to the river. She caught up her child, and sprang down the steps towards it. The trader espied her just as she was disappearing down the bank ; and throwing himself from his horse, he was after her like a hound after a deer. In that dizzy moment her feet scarce seemed to her to touch the ground, and in a few seconds she reached the water's edge. Right on behind came her pursuer. Nerved with strength such as God gives only to the desperate, with one wild cry and flying leap she vaulted sheer over the turbid current by the shore, on to the raft of ice beyond. It was a desperate leap—impossible to anything but madness and despair ; even the slave-hunter, as he came down the bank, instinctively cried out and lifted up his hands as she did it.

The huge green fragment of ice on which she alighted pitched and creaked as her weight came on it, but she stayed there not a moment. With wild cries and desperate energy she leaped to another, and still another cake,—stumbling, leaping, slipping, springing upwards again ! Her shoes were gone, her stockings cut from her feet, while blood marked every step ; but she saw nothing, felt nothing, till dimly, as in a dream, she saw herself on the other side, and a man helping her up the bank.

## FANCY.

JOHN KRATS, born in London, 1796 ; died at Rome, 1821, of consumption. At the age of twenty-one he published a volume of juvenile verses ; and a year later appeared a *Poetic Romance*, entitled *Endymion*, which in the opinion of good critics stamped the author as a poet of no mean rank.]

EVER let the Fancy<sup>1</sup> roam,  
 Pleasure never is at home :  
 At a touch sweet Pleasure melteth,  
 Like to bubbles when rain pelteth :  
 Then let wingèd Fancy wander  
 Through the thought still spread beyond her :  
 Open wide the mind's cage-door,  
 She'll dart forth, and cloudward soar.  
 O sweet Fancy ! let her loose ;  
 Summer joys are spoiled by use,  
 And the enjoying of the Spring  
 Fades as does its blossoming ;  
 Autumn's red-lipp'd fruitage too,  
 Blushing through the mist and dew,  
 Cloys with tasting : What do then ?  
 Sit thee by the ingle,<sup>2</sup> when  
 The sear faggot blazes bright,  
 Spirit of a winter's night ;  
 When the soundless<sup>3</sup> earth is muffled,  
 And the cakèd snow is shuffled  
 From the ploughboy's heavy shoon ;<sup>4</sup>  
 When the night doth meet the noon  
 In a dark conspiracy<sup>5</sup>  
 To banish even from her sky.

Sit thee there and send abroad,  
 With a mind self-overawed,  
 Fancy, high-commission'd,<sup>6</sup>—send her ;  
 She has vassals<sup>7</sup> to attend her :  
 She will bring, in spite of frost,  
 Beauties that the earth hath lost ;  
 She will bring thee, all together,  
 All delights of summer weather ;  
 All the buds and bells of May,  
 From dewy sward<sup>8</sup> or thorny spray ;  
 All the heapèd Autumn's wealth,  
 With a still mysterious stealth :



She will mix these pleasures up  
 Like three fit wines in a cup,  
 And thou shalt quaff<sup>9</sup> it, thou shalt hear  
 Distant harvest-carols clear ;  
 Rustle of the reaped corn ;  
 Sweet birds antheming the morn :  
 And, in the same moment—hark !  
 'Tis the early April lark,  
 Or the rooks with busy caw,  
 Foraging for sticks and straw.  
 Thou shalt at one glance behold  
 The daisy and the marigold ;  
 White-plumed lilies and the first  
 Hedge-grown primrose that hath burst :  
 Shaded hyacinth,<sup>10</sup> always  
 Sapphire queen of the mid-May ;  
 And every leaf and every flower  
 Pearlèd with the self-same shower.  
 Thou shalt see the field-mouse peep  
 Meagre from its cellèd<sup>11</sup> sleep ;  
 And the snake all winter thin,  
 Cast on sunny bank its skin ;  
 Freckled nest-eggs thou shalt see  
 Hatching in the hawthorn tree,  
 When the hen-bird's wing doth rest  
 Quiet on her mossy nest ;  
 Then the hurry and alarm  
 When the bee-hive casts its swarm :  
 Acorns ripe down pattering,  
 While the Autumn breezes sing.

<sup>1</sup> **Fancy**.—That faculty of the mind which brings before us the images of things previously seen, and sets them before us in any order we please.

<sup>2</sup> **Ingle**.—The fireside.

<sup>3</sup> **Soundless earth**.—When covered with snow.

<sup>4</sup> **Shoon**.—Old form of the word shoes.

<sup>5</sup> **A dark conspiracy**.—The night and noon are represented as plotting together to keep even, or twilight, out of the sky ; because, in winter, night follows day very quickly.

<sup>6</sup> **High-commissioned**.—Entrusted with an important errand.

<sup>7</sup> **Vassals**.—Servants ; in olden times persons who held land from another.

<sup>8</sup> **Sward**.—The green turf ; **spray**, twig, shoot.

<sup>9</sup> **Quaff**.—To drink largely.

<sup>10</sup> **Shaded hyacinth**.—The blue-bell, that grows in the shade, called the sapphire queen, because *sapphire* is a precious stone of a blue colour.

<sup>11</sup> **Cellèd sleep**.—Sleep in a little hole or cell.

## SIR WALTER RALEIGH'S INTRODUCTION TO QUEEN ELIZABETH.

[SIR WALTER SCOTT was born at Edinburgh, 1771, and died at Abbotsford, 1832. He stands at the head of English novel-writers. His first novel was published in 1814, under the title of *Waverley*, and as the author's name was kept secret for many years, the name of "Waverley" was applied to the whole series of novels from his pen. Most of these novels portray Scottish life and character in bygone times; but some of them, like *Kenilworth*, from which the following extract is taken, illustrate the pages of English history.]

"THERE are two things scarce matched in the universe," said Walter Raleigh to his companion Blount—"the sun in heaven, and the Thames on earth."

"The one will light us to Greenwich well enough," said Blount, "and the other would take us there a little faster if it were ebb tide."

"And this is all thou think'st—all thou carest—all thou deem'st the use of the King of Elements and the King of Rivers: to guide two such poor caitiffs as thyself and me upon an idle journey of courtly ceremony!"

"It is no errand of my seeking, faith," replied Blount; "and I could excuse both the sun and the Thames the trouble of carrying me where I have no great mind to go, and where I expect but dog's wages for my trouble; and, by my honour," he added, looking out from the head of the boat, "it seems to me as if our message were a sort of labour in vain—for see, the Queen's barge lies at the stairs, as if her Majesty were about to take water."

It was even so. The royal barge, manned with the Queen's watermen, richly attired in the royal liveries, and having the banner of England displayed, did indeed lie at the great stairs which ascended from the river. The yeomen of the guard, the tallest and handsomest men whom England could produce, guarded with their halberds<sup>1</sup> the passage from the palace gate to the river side, and all seemed in readiness for the Queen's coming forth although the day was yet so early.

Raleigh and his companion, however, landed, and presented themselves at the gate of the palace, to deliver the message which the Earl of Sussex had charged them to carry to the Queen. They were informed that they could not enter, as her Majesty was in the act of coming forth.

At this moment the gates opened, and ushers<sup>2</sup> began to issue forth in array, preceded and flanked by the band of gentlemen pensioners.<sup>3</sup> After this, amid a crowd of lords and ladies, yet so disposed around her that she could see and be seen on all sides, came Elizabeth herself, then in the prime of womanhood, and in the full glow of what in a sovereign was called beauty, and which would in the lowest rank of life have been truly judged a noble figure, joined to a striking and commanding physiognomy.<sup>4</sup>

The young cavalier had probably never yet approached so near the person of his sovereign, and he pressed forward as far as the line of warders permitted, in order to avail himself of the present opportunity. Unbonneting at the same time, he fixed his eager gaze on the Queen's approach, with a mixture of respectful curiosity and modest yet ardent admiration, which suited so well with his fine features that the warders, struck with his rich attire and noble countenance, suffered him to approach the ground over which the Queen was to pass somewhat closer than was permitted to ordinary spectators. Thus the adventurous youth stood full in Elizabeth's eye—an eye never indifferent to the admiration which she deservedly excited among her subjects, or to the fair proportions of external form which chanced to distinguish any of her subjects. Accordingly, she fixed her keen glance on the youth, as she approached the place where he stood, with a look in which surprise at his boldness seemed to be unmingled with resentment, while a trifling accident happened which attracted her attention towards him yet more strongly. The night had been rainy, and just where the young gentleman stood a small quantity of mud interrupted the Queen's passage. As she hesitated to pass

on, the gallant, throwing his cloak from his shoulders, laid it on the miry spot, so as to ensure her stepping over it dryshod. Elizabeth looked at the young man, who accompanied this act of devoted courtesy with a profound reverence and a blush that overspread his whole countenance. The Queen was confused, and blushed in her turn, nodded her head, hastily passed on, and embarked in her barge without saying a word.

"This cloak," said the youth to his companion, taking it up and folding it, "shall never be brushed while in my possession."

A few moments later one of the Queen's attendants came to summon him to the royal presence. He was ushered by the messenger into one of the wherries that lay ready to attend the Queen's barge, which was already proceeding up the river, with the advantage of the flood-tide.<sup>5</sup> The two rowers used their oars with such expedition that they very soon brought their little skiff under the stern of the Queen's boat, where she sat beneath an awning, attended by two or three ladies and the nobles of her household. She looked more than once at the wherry in which the young adventurer was seated, spoke to those around her, and seemed to laugh. At length one of the attendants, by the Queen's order apparently, made a signal for the wherry to come alongside, and the young man was desired to step into the Queen's barge, which he performed with graceful agility<sup>6</sup> at the fore part of the boat, and was brought aft to the Queen's presence, the wherry at the same time dropping into the rear. The youth underwent the gaze of majesty not the less gracefully that his self-possession was mingled with embarrassment. The muddled coat still hung upon his arm, and formed the natural topic with which the Queen introduced the conversation.

"You have this day spoiled a gay mantle in our service, young man. We thank you for your service, though the manner of offering it was unusual, and something bold."



"In a sovereign's need," answered the youth, "it is each liege-man's duty to be bold."

"In truth, that was well said, my lord," said the Queen, turning to a grave person who sat by her, and answered with a grave inclination of the head and something of a mumbled assent. "Well, young man, your gallantry<sup>7</sup> shall not go unrewarded. Go to the wardrobe-keeper, and he shall have orders to supply the suit which you have cast away in our service. Thou shalt have a suit, and that of the newest cut, I promise thee, on the word of a princess."

"May it please your Grace," said Walter, hesitating, "it is not for so humble a servant of your Majesty to measure out your bounties ; but if it became me to choose——"

"Thou wouldst have gold, I warrant me," said the Queen, interrupting him : "fie, young man ! I take shame to say that in our capital, such and so various are the means of thriftless folly,<sup>8</sup> that to give gold to youth is giving fuel to fire and furnishing them with the means of self-destruction. If I live and reign, these means of unchristian excess shall be abridged. Yet thou may'st be poor," she added, "or thy parents may be. It shall be gold, if thou wilt ; but thou shalt answer to me for the use on't."

Walter waited patiently until the Queen had done, and then modestly assured her that gold was still less in his wish than the raiment her Majesty had before offered.

"How, boy !" said the Queen, "neither gold nor garment ? What is it thou wouldst have of me, then ?"

"Only permission, madam—if it is not asking too high an honour—permission to wear the cloak which did you this trifling service."

"Permission to wear thine own cloak, thou silly boy !" said the Queen.

"It is no longer mine," said Walter : "when your Majesty's foot touched it, it became a fit mantle for a prince ; but far too rich a one for its former owner."

The Queen again blushed, and endeavoured to cover, by

laughing, a slight degree of not unpleasant surprise and confusion.

"Heard you ever the like, my lords? The youth's head is turned with reading romances. I must know something of him, that I may send him safe to his friends. What is thy name and birth?"

"Raleigh is my name, most gracious Queen,—the youngest son of a large, but honourable family of Devonshire."

"Raleigh?" said Elizabeth, after a moment's recollection: "have we not heard of your service in Ireland?"

"I have been so fortunate as to do some service there, madam," replied Raleigh; "scarce, however, of consequence sufficient to reach your Grace's ears."

"They hear farther than you think of," said the Queen graciously, "and have heard of a youth who defended a ford in Shannon against a whole band of wild Irish rebels, until the stream ran purple with their blood and his own."

"Some blood I may have lost," said the youth, looking down; "but it was where my best is due, and that is in your Majesty's service."

The Queen paused, and then said hastily, "You are very young to have fought so well, and to speak so well. And now, to take thee at thy word, see thou fail not to wear thy muddy cloak till our pleasure be further known. And here," she added, giving him a jewel of gold in the form of a chessman, "I give thee this to wear at the collar."

Raleigh, to whom nature had taught intuitively,<sup>9</sup> as it were, those courtly arts which many scarce acquire from long experience, knelt, and, as he took from her hand the jewel, kissed the fingers which gave it. He knew, perhaps, better than almost any of the courtiers who surrounded her, how to mingle the devotion claimed by the Queen with the gallantry due to her personal beauty; and in this, his first attempt to unite them, he succeeded so well as at once to gratify Elizabeth's personal vanity and her love of power.

<sup>1</sup> **Halberd**.—A pole-axe; a weapon consisting of an axe and heavy dagger fixed on a pole.

<sup>2</sup> **Usher**.—One whose business it is to introduce strangers or to walk before persons of rank.

<sup>3</sup> **Pensioner**.—One in the receipt of a pension, either for present or past services. The name is in our time only applied to a person receiving a stated allowance for *past* services, but in Elizabeth's time it was not so restricted.

<sup>4</sup> **Physiognomy**.—Expression of countenance, or the face itself.

<sup>5</sup> **Flood-tide**.—The incoming tide—

that which flows from the mouth of a river upwards. The tide in the opposite direction is called the *ebb-tide*.

<sup>6</sup> **Graceful agility**.—Easy quickness of action, free from awkwardness.

<sup>7</sup> **Gallantry**.—Polite attention to ladies; it often means bravery. The two meanings are closely connected, for a truly brave man is tender and considerate towards the weak and helpless.

<sup>8</sup> **Thrifless folly**.—Foolish extravagance.

<sup>9</sup> **Intuitively**.—Without any learning or effort of the mind.

## THE MURDER OF THE YOUNG PRINCES.

THE tyrannous and bloody act is done ;  
 The most arch deed of piteous massacre  
 That ever yet this land was guilty of.  
 Dighton and Forrest, whom I did suborn  
 To do this piece of ruthless butchery,  
 Albeit they were flesh'd villains, bloody dogs,  
 Melting with tenderness and mild compassion,  
 Wept like two children, in their death's sad story.  
 "O thus," quoth Dighton, "lay the gentle babes :"  
 "Thus, thus," quoth Forrest, "girdling one another  
 Within their alabaster innocent arms ;  
 Their lips were four red roses on a stalk  
 Which, in their summer beauty, kiss'd each other.  
 A book of prayers on their pillow lay ;  
 Which once," quoth Forrest, "almost changed my mind ;  
 But, O, the devil,"—there the villain stopp'd ;  
 When Dighton thus told on,—“we smothered  
 The most replenished sweet work of Nature,  
 That, from the prime creation, e'er she fram'd.”  
 Hence both are gone, with conscience and remorse ;  
 They could not speak ; so I left them both,  
 To bear this tidings to the bloody king.

SHAKESPEARE.



### THE SOLAR SYSTEM.

Is our earth the fixed centre of the universe, around which sun, moon, and stars revolve? Or is it the earth that really moves? This is the first great question in Astronomy, as that science is called which treats of the heavenly bodies and the laws which regulate their motions. Almost every child in our day knows that it is the earth that really moves round the sun, not the sun round the earth. This truth, however, has not been long established. "Seeing," we commonly say, "is believing;" but it is certain that the eye is often deceived, and that if we judge only by appearances we shall often arrive at false conclusions. Thus both learned and simple, relying on the evidence of their eyesight, were led, for long ages, to believe that the earth was by far the most important part of Creation, and that all the rest of the visible universe existed only for its sake—that the sun shone only to give it light and heat, and that the stars were as lamps suspended in the sky to dispel the gloom of night.

Two truths, however, respecting the heavenly bodies have been known from the earliest time: first, that the moon travels round the earth, and shines with the reflected rays of the sun for our sole benefit; secondly, that of all the stars visible to the naked eye, there are five unlike all the rest in their behaviour. These five stars seemed to the ancients to wander about the heavens, instead of keeping fixed positions like all the other stars. To these "wandering" stars, accordingly, they gave the name of planets, and called them after the names of their gods—Mercury, Venus, Mars, Jupiter, and Saturn.

It was not until the sixteenth century that the truth began to dawn upon the minds of the best astronomers—that our earth was like one of these planets, and that both the earth and the other planets revolved round the sun. Copernicus,

a German priest, who was born in 1472, has the honour of having set men on this track of truth. He showed the probability of the sun being the centre around which both the earth and planets moved. But, as yet the theory was not actually demonstrated.

Then came Galileo, a still greater astronomer, of Florence. Being informed that Jansen, of Holland, had contrived an instrument which caused distant objects to seem near, he was not long in constructing a telescope for himself. By the aid of this instrument he made many discoveries respecting the planets, which clearly proved that the Copernican theory was true—that the earth was one of the planets, and revolved, like them, round the sun.

In January, 1610, the telescope was for the first time directed to the planet Jupiter, when it was seen that Jupiter is encircled by four satellites, or moons, which revolve around that planet in the same way as the moon revolves around the earth. Thus was one point of resemblance established between one of the planets and the earth. Next it was discovered that Venus, in her course round the sun, goes through the same changes as the moon in her journey round the earth—being sometimes in the form of a crescent and sometimes quite “full.” It thus became obvious that the planets are not, like the other stars, sources of light in themselves, but, like the earth and moon, derive their light from the sun.

The truth was now fully established that the earth and the planets form one family, of which the sun is the centre. The sun, with its revolving planets and their attendant moons, form the “solar system.”

*Meaning and etymology of terms frequently used in these Lessons on Astronomy:—*

**Astronomy.**—Science which treats of the heavenly bodies [Gr. *astron*, a star; *nomos*, a law].

**Constellation.**—A group of stars [L. *con*, together; *stella*, a star].

**Crescent.**—Anything in the shape of

the new moon; the moon itself when in a state of increase [L. *cresco*, to grow].

**Eclipse.**—Darkening of the sun or moon, when the whole or part is seemingly blotted out [Gr. *ek*, out; *leipo*, to leave].

**Orbit.**—The path in space along which a planet moves. This path is elliptical or nearly circular [*L. orbis*, a circle].

**Phase.**—An appearance; a term applied to the shape of the moon, which appears very different in different parts of its course.

**Planet.**—One of the worlds revolving round the sun [*Gr. planetes*, a wanderer].

**Revolve.**—To roll round [*L. volvo*, to roll].

**Satellite.**—A moon [*L. satelles*, an attendant].

**Solar.**—Relating to the sun [*L. sol*, the sun].

**Telescope.**—An instrument for viewing distant objects; it has the effect of bringing them apparently nearer [*Gr. tele*, at a distance; *scopeo*, to see].

**Universe.**—The whole creation—sun, moon, stars, earth, etc. [*L. universus*, the whole].

## THE PLANETS.

GALILEO having demonstrated that the earth and the other planets revolve round the sun, the next question to be settled was the shape of the orbits, or paths, in which they moved. This was determined by a celebrated astronomer named Kepler. It was well known that the earth and all the planets move in the same direction (from west to east), and it was thought that they moved in circular orbits. It turned out, however, that the orbits of the earth and planets are all in the form of an oval or ellipse; and, on further investigation, it was found that the moons or satellites also move in elliptical orbits.

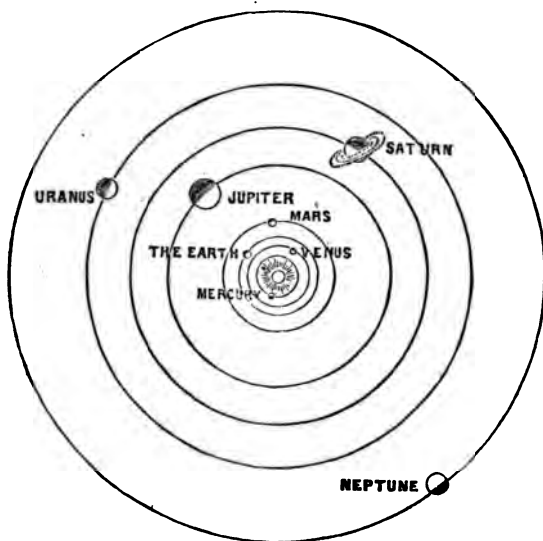
The early astronomers were only acquainted with five planets besides the earth; but in 1781 a new one was discovered by Sir W. Herschel, who was once an organist at Doncaster, and afterwards the greatest astronomer of his time. This planet was at first called the Georgian star, in honour of George the Third, but it is now universally known as Uranus. Still the number was not completed till 1846, when Neptune was added to the list.

There are, then, eight planets, as follow, in the order of distance from the sun :—

- |             |             |
|-------------|-------------|
| 1. Mercury, | 5. Jupiter, |
| 2. Venus,   | 6. Saturn,  |
| 3. Earth,   | 7. Uranus,  |
| 4. Mars,    | 8. Neptune. |

In addition to these are 109 extremely small planets, called *asteroids*, revolving round the sun between the orbits of Mars and Jupiter. These asteroids are supposed to be the fragments of a planet which has been broken up.

From the list of planets given above, it will be seen that two planets, Mercury and Venus, come between the Earth and the Sun. Consequently their orbits are much shorter



than the earth's orbit, and the time which they take to travel round the sun is accordingly much less. The earth, we know, takes  $365\frac{1}{4}$  days to complete its journey round the sun, but Mercury only 88 days.

The first planet beyond the earth is Mars, which gives us better opportunities of seeing him than any of the other planets. There is something in his composition which makes him generally look reddish, and hence he has received

the name of Mars, the god of war. The next planet is Jupiter, which is remarkable for his bulk, being more than a thousand times bigger than the earth, and for his moons, of which there are four, regularly revolving around him. Saturn, the next in order, is more than half the size of Jupiter. He is surrounded by a remarkable ring or luminous band; and he is attended by no less than eight moons, but they are much smaller than our moon.

Let us next inquire into the various distances of the planets from the sun, bearing in mind that, as the orbits are elliptical, the planets are sometimes nearer to the sun than at other times. The earth's mean distance from the sun (that is, the average between the greatest and the least distances) is 91,404,000 miles, and therefore the whole length of the earth's orbit is 574,310,000 miles. As the earth travels this distance in a year, you will find, on working it out, that it comes to a rate of travelling through space of 65,518 miles an hour, or  $18\frac{1}{2}$  miles in a second—that is to say, more than 1000 times faster than an express train travels, and 80 times faster than sound, or an ordinary cannon-ball, goes through the air. It seems strange that, notwithstanding this enormous velocity, we do not feel it moving. But the fact is, the earth has nothing to impede its motion or cause it to shake, and motion without shaking is as easy as rest. Besides, we carry the air with us, as in a railway carriage, and therefore feel no wind.

It will be seen from the following table that the distance of the earth from the sun, though amounting to so many millions of miles, is but small when compared with the distance of the outer planets. There is also a vast difference in their sizes or volumes. The earth, we know, has a diameter of nearly 8,000 miles—that is to say, a person would have to travel that distance if it were possible for him to go right through the earth from pole to pole. It will appear from the following table how small the earth is, compared with some of the other planets;—

Planets.	Distance in miles from the Sun.	Comparative volume.
Mercury . .	35,393,000	5
Venus . . .	66,130,000	80
Earth . . .	91,404,000	100
Mars . . .	139,312,000	14
Jupiter . .	475,693,000	138,700
Saturn . . .	872,135,000	74,600
Uranus . . .	1,752,851,000	7,200
Neptune . .	2,746,271,000	9,400

*Chief discoveries made by Astronomers, and referred to in these lessons on Astronomy:—*

COPERNICUS, born 1472, a German priest: showed the probability of the earth moving round the sun, and not, as was then supposed, the sun round the earth.

GALILEO, the famous philosopher of Florence: proved by means of his telescope, in 1610, that Jupiter and Venus are worlds—shining like our own world by the light of the sun—and thus demonstrated the truth of the Copernican theory.

KEPLER, a German astronomer; was a contemporary of Galileo: proved that the orbits of the earth and planets are elliptical, and that the sun occupies one of their common foci.

NEWTON, our great English philosopher (born 1642, died 1727): discovered that the motions of the earth and all the heavenly bodies are determined by the same great law: viz., *All bodies attract each other with a force varying directly as their mass, and inversely as the square of their distance.*

HERSCHEL discovered, in 1781, a new planet called *Uranus*; and in 1846 another was discovered, and named *Neptune*. The chief merit of this last discovery is due to Mr. Adams.

## NATURE'S CHAIN.

[ALEXANDER POPE, born in London, 1688; died at Twickenham, near London, 1744. His works are various and copious sources of delight and improvement. The following lines are extracted from his *Essay on Man*.]

FAR as creation's ample range extends,  
 The scale of sensual,<sup>1</sup> mental powers ascends:  
 Mark how it mounts to man's imperial<sup>2</sup> race,  
 From the green myriads<sup>3</sup> in the peopled grass:  
 What modes of sight betwixt each wide extreme,  
 The mole's dim curtain,<sup>4</sup> and the lynx's beam!  
 Of smell, the headlong lioness between,  
 And hound sagacious<sup>5</sup> on the tainted green!  
 Of hearing, from the life that fills<sup>6</sup> the flood  
 To that which warbles through the vernal wood!  
 The spider's touch, how exquisitely fine!  
 Feels at each thread, and lives along the line:  
 In the nice<sup>7</sup> bee what sense so subtly true,  
 From poisonous herbs extracts the healing dew!

\* \* \* \* \*

See through this air, this ocean, and this earth,  
 All matter quick,<sup>8</sup> and bursting into birth !  
 Above, how high progressive life may go !  
 Around, how wide ! how deep extend below !  
 Vast chain of being ! which from God began ;  
 Nature's ethereal,<sup>9</sup> human, angel, man,  
 Beast, bird, fish, insect, what no eye can see,  
 No glass<sup>10</sup> can reach : from infinite to thee ;  
 From thee to nothing. On superior powers  
 Were we to press, inferior might on ours ;  
 Or in the full creation leave a void,  
 Where, one step broken, the great scale's destroy'd :  
 From Nature's chain whatever link you strike,  
 Tenth or ten-thousandth, breaks the chain alike.

And if each system<sup>11</sup> in gradation roll,  
 Alike essential to th' amazing whole,  
 The least confusion but in one, not all  
 That system only, but the whole must fall.  
 Let earth unbalanced from her orbit fly,  
 Planets and stars run lawless through the sky ;  
 Let ruling angels from their spheres be hurl'd,  
 Being on being wreck'd, and world on world ;  
 Heaven's whole foundations to their centre nod,  
 And nature tremble to the throne of God.

What if the foot, ordain'd the dust to tread,  
 Or hand to toil, aspir'd to be the head ?  
 What if the head, the eye, or ear repin'd  
 To serve mere engines to the ruling mind ?  
 Just as absurd for any part to claim  
 To be another in this general frame ;  
 Just as absurd<sup>12</sup> to mourn the tasks or pains  
 The great directing Mind of All ordains.

<sup>8</sup> **Sensual powers.**—Those relating to the bodily senses.

<sup>9</sup> **Man's imperial race.**—So called on account of man's superiority to other creatures on earth.

<sup>10</sup> **The green myriads, etc.**—The swarms of green insects that live in the grass.

<sup>11</sup> **Dim curtain.**—This refers to the dim eyesight of the mole. The *lynx*, on the other hand, is remarkable for its keenness of sight.

<sup>12</sup> **Hound sagacious, etc.**—"The tainted green" is the grass across which a hare has run and left its scent behind.

The *greyhound* that pursues it is not guided by the smell, but by the sight.

<sup>13</sup> **The life that fills, etc.**—The fishes that people the water, and whose hearing is quick, although their ears are very small and imperfectly formed.

<sup>14</sup> **Nice bee.**—"Nice" properly means able to distinguish with great precision.

<sup>15</sup> **Quick.**—Alive.

<sup>16</sup> **Nature's ethereal.**—"Ether" is a fluid like air, but much finer, and is supposed to fill all space above our atmosphere. Hence "ethereal natures" are heavenly natures.

<sup>17</sup> **No glass can reach.**—There are

beings so minute that no microscope can magnify them sufficiently to render them visible.

<sup>11</sup> **If each system, etc.**—There are probably in the universe innumerable systems, or sets of worlds, like those which roll around our sun. If one system were to fall into confusion, others would be drawn into disorder likewise.

<sup>12</sup> **Just as absurd, etc.**—The poet teaches us that the Creator has assigned to each part of His creation a certain position and office, and that as the general good depends upon the obedience of each part to the Creator's will, it is foolish for any person to complain that his lot was not otherwise ordered.

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## THE SUN.

LIKE a beneficent sovereign seated on his shining throne, the sun reigns over the planets that revolve around him: his invisible power directs their course, cheers their inhabitants with light and heat, and is, indeed, their source of life and action. If his light were extinguished, eternal night would envelop our globe, which would soon be wrapped in a mantle of ice, and become the silent domain of death.

Compared to our globe and to the other orbs which it enchains in their orbits round itself, the sun is of enormous dimensions. It appears so small on account of its amazing distance from us, which is not less than 91,000,000 miles. If we could only realize this distance, we should not be so much surprised to hear that the sun is more than a million times as big as the earth.

As nearly all distances in the solar system are measured by millions, it is worth while to try to get some idea of what is meant by a million. If you had a million shillings to count one by one, and took a second for each shilling, and kept at the task ten hours each day, it would take you nearly a month to complete it. If Solomon, who flourished a thousand years before the birth of Christ, were still alive, he would not have lived much more than a million days. An express train, going a mile a minute and never stopping on its journey, would take nearly two years to go a million miles.

By reference to the speed of a railway-train, we may form some conception of the sun's distance from the earth, and



its own dimensions. The sun's circumference is so amazingly great, that it would take an express train, travelling sixty miles an hour, nearly five years to go once round the sun, whereas it would only take about seventeen days to make the circuit of the earth, supposing it possible for the train to go on at the given rate without a single stop. Again, supposing the same train to start on a journey to the sun on the 1st of January 1877, it would not arrive at its destination till the year 2046. This distance, which would take an express train 169 years to accomplish, is travelled over by light in eight minutes and a half.

However dazzling may be the splendour of the sun, it is not free from dark spots. It is thought that the sun consists of a dark solid substance inside and of a luminous substance outside. The dark spots are supposed to be gaps or chasms in the luminous envelope<sup>1</sup> of the sun, through which we catch glimpses of the dark and solid sun beneath. Though these spots are small compared with the extent of the sun's surface, they are still sufficiently large to swallow up our earth and half a dozen of her sister planets. Some sun spots are 50,000 miles wide, and are quite visible without telescopes when the sun is dimmed by a fog.

It may be remarked that to look at the sun through a telescope, without proper precautions, is a very dangerous affair. Many astronomers have lost their eyesight by so doing: no person should attempt to view the sun, even with the smallest telescope, without proper guidance.

It is impossible to over-estimate the advantages we derive from the sun. Not only do we get the genial light and heat from its rays, but there is in them besides a property on which plants depend for their growth. It is well known that men and animals breathe out carbonic acid—a poisonous gas consisting of carbon<sup>2</sup> and oxygen—and that plants breathe in the same through their leaves. Now, by the action of the sunlight upon the leaves, the carbonic acid is separated into carbon and oxygen; the carbon is

retained in the leaves and goes to build up the plant, whilst the oxygen is set free and serves to purify the air and render it fit for men and animals to breathe. Thus, then, does the sun, by its light, heat, and chemical<sup>3</sup> action, build up the vegetable world.

We are not only indebted to the sun for his benign influence at the present time, but we are enjoying the fruits of his labours in long ages past before man was created. We may read in the life of George Stephenson, the inventor of the locomotive engine, that he surprised a scientific friend of his by telling him that his locomotive was driven by the sun's heat, "bottled up" in the earth for perhaps millions of years. He meant that the steam was produced from water by heat derived from coals which have lain in the earth for long ages and owe their origin to the sun. As coal is known to be the condensed<sup>4</sup> vegetables of former ages, chiefly of gigantic kinds of ferns, which could only grow in a very damp and hot air, it is certainly true that every bit of coal which we burn now owes its heat-giving power to the heat which it borrowed from the sun untold ages ago.<sup>5</sup>

Thus the sun is the great giant that does our work: his energy is the source of the power of steam, by which our locomotives take us so rapidly and smoothly across a whole continent, and by which our mail-packets take us so safely across the broad ocean. And more: he is the origin of all the power which water exerts in turning the machinery in our mills; for how could the water in our rivers descend and turn heavy wheels in its downward course, unless it were first raised by the sun's evaporating power?

Steam and water, then, both owe their usefulness as our servants to the sun's energy. And, lastly, there is a third servant that does our heavy work, which is equally indebted to the sun for his strength,—and that is the wind, which fills the sails of our ships and turns the windmills on the summits of our hills; for of course no wind would blow if there

was no sun to heat one part of the atmosphere more than another, and thus destroy the balance which exists when the air is at rest.

It will thus be seen that we owe nearly everything to the sun's energy. Is the sun's power exhaustless, or will the time ever come when he will cease to shine? The sun cannot always continue to give forth light and heat unless it be supplied by the Creator again and again with fresh energy, any more than a fire can be kept in unless we put on fuel—any more than a man can continue to work without food. In all probability, it is thought by most men capable of judging, a time will come when the sun, with all its planets welded into its mass, will roll through space a cold, black ball.

<sup>1</sup> **Luminous envelope.**—Just as the atmosphere surrounds the earth, so there seems to be some bright, light-giving fluid round the sun [*L. lumen*, light].

<sup>2</sup> **Carbon.**—Is the same substance as charcoal. **Oxygen** is that part of the atmosphere which supports life.

<sup>3</sup> **Chemical action.**—Here consists in separating the gas called carbonic acid into its two elements, carbon and oxygen.

<sup>4</sup> **Condensed vegetables.**—The woody part of plants, after all the sap and

moisture have evaporated, pressed together very close by the weight of the rocks and soil above them.

.....—The argument is this: the engine moves by the force of steam, which gets its power from the heat of the fire, and the fire from the coal burnt in it; again, the coal is composed of decayed plants, and these plants grew in consequence of the heat of the sun; therefore the locomotive moves by the sun's heat 'bottled up' in the earth.

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## THE MOON.

THE moon is the constant attendant of the earth in her course around the sun. Like the earth, she borrows all her light from the sun, and serves as a mirror to reflect that light to us.

Compared to the distance of the sun, that of the moon is insignificant, being only 240,000 miles. The moon looks as large as the sun, but this is on account of its comparative nearness. While the sun is more than a million times bigger than the earth, the earth is nearly fifty times bigger than the moon.

As a powerful telescope will magnify an object 1000

times, or make it seem 1000 times nearer, astronomers can see the moon as if it were only 240 miles distant. Consequently the surface of the moon has been studied and mapped out. Even the heights of the chief mountains have been calculated by means of the shadows they cast. It is easy to see with the naked eye that some parts of the moon are much brighter than others. The bright parts are the mountains standing out in the sunlight, and the dark patches are the valleys lying in the shadow of the mountains.

Most of the mountains of our pale companion are volcanoes, and all of them, except perhaps one, are now extinct.<sup>1</sup> Some parts of the surface are pitted and seamed with the craters of these volcanoes like a face badly marked with the small-pox. Though the subterranean fires of our satellite have now nearly burnt themselves out, their fury in past ages must have far exceeded anything we can imagine. Some of the lunar craters<sup>2</sup> are a dozen miles in diameter,<sup>3</sup> and the gaping mouth of one volcano is no less than thirty miles from one lip to the other.

The moon seems void of water and air, and therefore of all life; not a blade of grass grows there, not a worm creeps along the ground; not a sound is heard there, but the stillness of death reigns everywhere.

Let us now try to understand what are called the *phases* of the moon—that is, the different shapes and appearances the moon puts on. As the moon is in the shape of a globe, and gets all her light from the sun, it is evident only half of her surface can be lighted up at once. Sometimes the bright half directly faces the earth, sometimes the dark half is turned towards us, and at other times a part of the bright side is visible. When the bright side of the moon is wholly turned towards us, we say it is “full moon,” and when the dark side is wholly turned towards us, so that we see no moon at all, then it is “new moon,” but we do not usually apply that name to the moon till it begins to appear in the

form of a crescent. The moon is *full* when the sun and moon are on opposite sides of the earth, and it is *new* when they are on the same side.

As the moon has no light of her own, but only reflects the sun's light to us, so we do the same to her. If there were really a man in the moon, he would see the earth shine as we see the moon shine; he would speak of earthshine as we speak of moonshine. A day or two before or after new moon you may see what is called "the new moon with the old one in her arms," or a bright narrow crescent, with the rest of the circle just light enough to be seen. That is the reflection of the earthshine back from the moon: the earth is shining on the moon, and the moon is reflecting the earthshine back again.

Sometimes when the moon is full there is an eclipse of the moon. This takes place whenever the sun, the earth, and the full moon are in a direct line; for then the earth (coming directly between the sun and the moon) intercepts the rays of the sun and casts its shadow on the moon. As the shadow thrown by the earth upon the moon is always round, an eclipse of the moon is one of the best proofs of the earth's rotundity.<sup>4</sup> And sometimes when the moon is new there is an eclipse of the sun. This occurs whenever the earth, the new moon, and the sun are in a direct line; for then the moon (coming directly between the earth and the sun) hides the light of the sun from the earth. Sometimes the sun is wholly eclipsed, sometimes partially.

"A total eclipse of the sun," says Mr. Lockyer, "is at once one of the most awe-inspiring and grandest sights it is possible for man to witness. As the eclipse advances, but before the totality is complete, the sky grows of a dusky livid, or purple, or yellowish crimson, which gradually gets darker and darker. The sea turns lurid red. This singular colouring and darkening of the landscape is quite unlike the approach of night, and gives rise to strange feelings of sadness. The moon's shadow is seen to sweep across the

surface of the earth, and is even seen in the air ; the rapidity of its motion and its intenseness produce a feeling that something material is sweeping over the earth at a speed perfectly frightful. All sense of distance is lost, the faces of men assume a livid hue, fowls hasten to roost, flowers close, cocks crow, and the whole animal world seems frightened out of its usual propriety." A few seconds before the commencement of the totality the stars burst out ; and encircling the dark image of the moon is seen a rim of light, of a silver-white, around the edges of the sun.

<sup>1</sup> **Extinct Volcanoes.**—Those whose fires are extinguished or gone out.

<sup>2</sup> **Lunar craters.**—Craters of volcanoes in the moon [L. *luna*, the moon].

<sup>3</sup> **Diameter.**—Right across the centre, from one side to the opposite.

<sup>4</sup> **Earth's Rotundity.**—Roundness of the earth [L. *rota*, a wheel].

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## THE STARS.

ON a cloudless night the sky is so besprinkled with stars that it seems impossible to count them ; but in reality only 6000 stars are visible to the naked eye, and of course only one-half of them is seen at a time. But so vast is the number of the stars, that by the aid of a powerful telescope 20,000,000 are visible. Of this inconceivable number nine-tenths are situated in that part of the sky called the *Milky Way*, the name given to a beautiful belt of pale light that spans the sky. The *Milky Way*, this long white train, which the Arabs called the *Heavenly River*, is in reality a host of stars. These stars are so faint and apparently so close together, that to the naked eye they present one continuous stream of light. This, however, is merely the effect of distance.

It has been already explained that a few stars change their position, and revolve like our earth round the sun. These apparent stars, called planets, are really like our earth, and borrow all their radiance from the sun. Not so the true stars. They are like the sun, shining with their own light, and keeping (or seeming to keep) fixed positions in relation

to each other. All the stars, then, with the exception of the few planets, are suns like ours—each of which has, most likely, its own planets, or worlds, coursing round it.

Not only are the stars of the nature of our sun, but most of them equal or exceed it in size. They only appear smaller and give forth less light on account of their amazing distance. We can only get an idea of their distance by comparing the time taken by light to travel from them to us. So rapidly does light travel, that between the two ticks of a clock it darts along a line equal in length to eight times round the earth, and accomplishes the distance between the sun and the earth in eight minutes and a half. Yet so enormously distant is the nearest of the stars from the earth, that its light takes three years and a half to reach us. Supposing a star were created to-day, and placed at the distance of the nearest star, it would be three years and a half before we should see it. When, then, we look at the stars we see them with the light that has in most cases left them several years before we were born; indeed, some of the more distant are seen with light that has been travelling to us since the creation of Adam.

Astronomers have mapped out the heavens, and classified the stars into groups called *constellations*, each being fancifully named after some animal or object: for instance, there is a constellation near the pole star, consisting of seven bright stars, called the Great Bear. It is useful to be able to recognise this constellation, for the pole star is then easily found, and the cardinal points ascertained.

The phenomenon called "shooting-stars" is not produced, as the ignorant think, by stars falling from the sky. They are really meteors, or huge stony masses called meteoric stones, revolving like the earth, round the sun, and coming at certain times into contact with our atmosphere. In consequence of the friction caused by this collision they burst into flame, and, as they are rapidly proceeding on their journey, they look like falling stars.

**THE CLOUD.**

I BRING fresh showers for the thirsting flowers,  
From the seas and the streams ;  
I bear light shades for the leaves when laid  
In their noon-day dreams.  
From my wings are shaken the dews that waken  
The sweet buds every one,  
When rock'd to rest on their mother's breast,  
As she dances about the sun.  
I wield the flail of the lashing hail,  
And whiten the green plains under,  
And then again I dissolve it in rain,  
And laugh as I pass in thunder.  
I sift the snow on the mountains below,  
And their great pines groan aghast ;  
And all the night 'tis my pillow white,  
While I sleep in the arms of the blast.

Sublime on the towers of my skiey bowers,  
Lightning my pilot sits,  
In a cavern under is fettered the thunder,  
It struggles and howls at fits ;  
Over earth and ocean, with gentle motion,  
This pilot is guiding me,  
Lured by the love of the genii <sup>1</sup> that move  
In the depths of the purple sea ;  
Over the rills, and the crags, and the hills,  
Over the lakes and the plains,  
Wherever he dream, under mountain or stream,  
The spirit he loves remains ;  
And I all the while bask in heaven's blue smile,  
Whilst he is dissolving in rains.

The sanguine <sup>2</sup> sunrise, with his meteor eyes,  
And his burning plumes outspread,  
Leaps on the back of my sailing rack,  
When the morning star shines dead.  
As on the jag of a mountain crag,  
Which an earthquake rocks and swings,  
An eagle alit one moment may sit  
In the light of its golden wings.



And when sunset may breathe, from the lit sea beneath,  
Its ardours of rest and of love,  
And the crimson pall of eve may fall  
From the depth of heaven above,  
With wings folded I rest, on mine airy nest,  
As still as a brooding dove.

That orbèd maiden, with white fire laden,  
Whom mortals call the moon,  
Glides glimmering o'er my fleece-like floor,  
By the midnight breezes strewn ;  
And wherever the beat of her unseen feet,  
Which only the angels hear,  
May have broken the woof of my tent's thin roof  
The stars peep behind her and peer ;  
And I laugh to see them whirl and flee,  
Like a swarm of golden bees,  
When I widen the rent in my wind-built tent,  
Till the calm rivers, lakes, and seas,  
Like strips of the sky fallen through me on high,  
Are each paved with the moon and these.

I bind the sun's throne with the burning zone,<sup>4</sup>  
And the moon's with a girdle of pearl ;  
The volcanoes are dim, and the stars reel and swim  
When the whirlwinds my banner unfurl.  
From cape to cape, with a bridge-like shape,  
Over a torrent sea,  
Sunbeam-proof, I hang like a roof,  
The mountains its columns be.  
The triumphal arch<sup>5</sup> through which I march,  
With hurricane, fire, and snow,  
When the powers of the air are chained to my chair,  
Is the million-coloured bow ;  
The sphere-fire above its soft colours wove,  
While the moist earth was laughing below.

I am the daughter of earth and water,  
And the nursling of the sky ;  
I pass through the pores of the ocean and shore ;  
I change, but I cannot die.  
For after the rain, when with never a stain,  
The pavilion<sup>6</sup> of heaven is bare,  
And the winds and sunbeams with their convex gleams,  
Build up the blue dome of air,

I silently laugh at my own cenotaph,<sup>7</sup>  
 And out of the caverns of rain,  
 Like a child from the womb, like a ghost from the tomb,  
 I arise and unbuild it again.

SHELLEY.

<sup>1</sup> **Genii**.—Plural of *genius*, a good or evil spirit, similar to a fairy.

<sup>2</sup> **Sanguine**.—Red, like blood [L. *sanguis*, blood].

<sup>3</sup> **Meteor-eyes**.—Looking as bright as a *meteor* or falling star.

<sup>4</sup> **Burning zone**.—A belt of fiery-looking clouds.

<sup>5</sup> **Triumphal arch**.—The rainbow.

<sup>6</sup> **Pavilion**.—That which is spread out, like the wings of a butterfly—a gay tent [L. *papilio*, a butterfly].

<sup>7</sup> **Cenotaph**.—An empty tomb [Gr. *kenos*, empty; *taphos*, a tomb].

## COMPARATIVE INSIGNIFICANCE OF THE EARTH.

[DR. CHALMERS, born 1780, was one of the greatest pulpit orators of the day. In 1828 he became Professor of Divinity in the University of Edinburgh. At the secession from the Church of Scotland in 1843, he relinquished his appointment, and became one of the founders of the Free Church. His most important works are his *Natural Theology*, *Evidences of Christianity*, *Moral Philosophy*, and *Astronomical Discourses*.]

THOUGH this earth were to be burned up, though the trumpet of its dissolution were sounded, though yon sky were to pass away as a scroll, and every visible glory which the finger of the Divinity has inscribed on it were to be put out for ever—an event so awful to us, and to every world in our vicinity, by which so many suns<sup>1</sup> would be extinguished, and so many varied scenes of life and population would rush into forgetfulness—what is it in the high scale of the Almighty's workmanship? A mere shred, which, though scattered into nothing, would leave the universe of God one entire scene of greatness and of majesty. Though the earth and the heavens were to disappear, there are other worlds which roll afar; the light of other suns shines upon them; and the sky which mantles them is garnished with other stars. Is it presumption to say that the moral<sup>2</sup> world extends to these distant and unknown regions? that they are occupied with people? that the charities of home and of neighbourhood flourish there? that the praises of God are there lifted up, and His goodness rejoiced in? that

there piety has its temples and its offerings? and the richness of the Divine attributes<sup>3</sup> is there felt and admired by intelligent worshippers?

And what is this world in the immensity which teems with them? and what are they who occupy it? The universe at large would suffer as little in its splendour and variety by the destruction of our planet, as the verdure and sublime magnitude of a forest would suffer by the fall of a single leaf. The leaf quivers on the branch which supports it. It lies at the mercy of the slightest accident. A breath of wind tears it from its stem, and it lights on the stream of water which passes underneath. In a moment of time the life, which we know by the microscope it teems with, is extinguished; and an occurrence so insignificant in the eye of man, and on the scale of his observation, carries in it to the myriads which people this little leaf an event as terrible and as decisive as the destruction of a world. Now, on the grand scale of the universe, we, the occupiers of this ball, which performs its little round among the suns and the systems<sup>4</sup> that astronomy has unfolded—we may feel the same littleness and the same insecurity. We differ from the leaf only in this circumstance: that it would require the operation of greater elements to destroy us. But these elements exist. The fire which rages within may lift its devouring energy to the surface of our planet,<sup>5</sup> and transform it into one wide and wasting volcano. The sudden formation of elastic<sup>6</sup> matter in the bowels of the earth—and it lies within the agency of known substances to accomplish this—may explode it into fragments. The exhalation of noxious air from below may impart a virulence to the air that is around us; it may affect the delicate proportion<sup>7</sup> of its ingredients; and the whole of animated nature may wither and die under the malignity of a tainted atmosphere. A blazing comet<sup>8</sup> may cross this fated planet in its orbit, and realise all the terrors which superstition has conceived of it. We cannot anticipate with precision the consequences of an

event which every astronomer must know to lie within the limits of chance and probability. It may hurry our globe towards the sun, or drag it to the outer regions of the planetary system, or give it a new axis<sup>9</sup> of revolution—and the effect, which I shall simply announce without explaining it, would be to change the place of the ocean, and bring another mighty flood upon our islands and continents.

These are changes which may happen in a single instant of time, and against which nothing known in the present system of things provides us with any security. They might not annihilate the earth, but they would unpeople it ; and we, who tread its surface with such firm and assured footsteps, are at the mercy of devouring elements, which, if let loose upon us by the hand of the Almighty, would spread solitude, and silence, and death over the dominions of the world.

Now, it is this littleness and this insecurity which make the protection of the Almighty so dear to us, and bring with such emphasis to every pious bosom the holy lessons of humility and gratitude. The God who sitteth above, and presides with an authority over all worlds, is mindful of man ; and though at this moment His energy is felt in the remotest provinces of creation, we may feel the same security in His providence as if we were the objects of His undivided care.

It is not for us to bring our minds up to this mysterious agency. But such is the incomprehensible fact, that the same Being, whose eye is abroad over the whole universe, gives vegetation to every blade of grass, and motion to every particle of blood which circulates through the veins of the minutest animal ; that though His mind takes into its comprehensive grasp immensity and all its wonders, I am as much known to Him as if I were the single object of His attention ; that He marks all my thoughts ; that He gives birth to every feeling and every movement within me ; and that, with an exercise of power which I can neither

describe nor comprehend, the same God who sits in the highest heaven, and reigns over the glories of the firmament, is at my right hand to give me every breath which I draw and every comfort which I enjoy.

<sup>1</sup> **So many suns.**—All the stars we see, except the planets, are probably suns, each having a set of worlds revolving round it.

<sup>2</sup> **The moral world.**—Beings knowing the difference between right and wrong, like ourselves.

<sup>3</sup> **Divine attributes.**—The qualities and faculties which distinguish the Deity; such as omnipotence, or almighty power.

<sup>4</sup> **The systems.**—The sets of worlds like those which, with the sun, form our solar system.

<sup>5</sup> **Our planet.**—The world itself, which, some distance below the surface, is in a burning state.

<sup>6</sup> **Elastic matter.**—Such as steam, which is highly elastic; for when pressed together into a smaller space, it has the tendency to recover its former bulk, and

has often the power to carry all before it in its endeavour to expand.

<sup>7</sup> **The delicate proportion.**—The atmosphere consists mainly of two gases, oxygen and nitrogen in the proportion of 21 to 79. There is besides a small quantity of carbonic acid, about 3 in 10,000 parts.

<sup>8</sup> **A blazing comet.**—Besides the planets which revolve in regular orbits round the sun, at fixed distances from it, there are *comets*, having the appearance of a star with a luminous tail, which also travel round the sun; but as their orbits cross those of the planets, it is possible that the earth may one day be burned up by collision with one of those fiery bodies.

<sup>9</sup> **Axis of revolution.**—This is in the direction of a line passing from the north to the south pole.

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## THE VICAR OF WAKEFIELD.

[OLIVER GOLDSMITH, born at Pallas, county of Longford, Ireland, 1728; died in London, 1774. His histories are full of errors, but his imaginative works—poems, comedies, and novels—bear the stamp of genius. Chief poems, *The Traveller* and *The Deserted Village*; chief comedies, *The Good-natured Man* and *She Stoops to Conquer*; chief prose work, *Vicar of Wakefield*. The following is extracted from the last-named work, which is unquestionably one of the most delightful tales in the English language.]

### THE VICAR'S FAMILY.

I HAD taken orders<sup>1</sup> scarcely a year, before I began to think seriously of matrimony, and chose my wife, as she did her wedding-gown, not for a fine glossy surface, but for such qualities as would wear well. To do her justice, she was a good-natured notable woman; and as for breeding, there were few country ladies who could show more. She could read any English book without much spelling; but for pickling, preserving, and cookery, none could excel her. She prided herself also upon being an excellent contriver

in housekeeping ; though I never could find that we grew richer with all her contrivances.

However, we loved each other tenderly, and our fondness increased as we grew old. There was, in fact, nothing that could make us angry with the world or each other. We had an elegant house, situated in a fine country, and a good neighbourhood. The year was spent in social or rural amusements, in visiting our rich neighbours, and relieving such as were poor. We had no revolutions to fear, nor fatigues to undergo ; all our adventures were by the fireside, and all our migrations from the blue bed to the brown.

As we lived near the road, we often had the traveller or stranger visit us to taste our gooseberry-wine, for which we had great reputation ; and I profess, with the veracity<sup>2</sup> of an historian, that I never knew one of them find fault with it. Our cousins, too, even to the fortieth remove, came very frequently to see us. Some of them did us no great honour by these claims of kindred ; and we had the blind, the maimed, and the halt amongst the number. However, my wife always insisted that, as they were the same flesh and blood, they should sit with us at the same table. So that if we had not very rich, we generally had very happy friends about us ; for this remark will hold good through life—that the poorer the guest, the better pleased he ever is with being well treated : and as some men gaze with admiration at the colours of a tulip, or the wings of a butterfly, so I was by nature an admirer of happy human faces. However, when any one of our relations was found to be a person of very bad character, a troublesome guest, or one we desired to get rid of, upon his leaving my house I ever took care to lend him a riding-coat, or a pair of boots, or sometimes a horse of small value, and I always had the satisfaction of finding he never came back to return them. By this the house was cleared of such as we did not like ; but never was the family of Wakefield known to turn the traveller or the poor dependant<sup>3</sup> out of doors.

Thus we lived several years in a state of much happiness,—not but that we sometimes had those little rubs which Providence sends to enhance the value of its favours. My orchard was often robbed by schoolboys, and my wife's custards plundered by the cats or the children. The squire would sometimes fall asleep in the most pathetic parts of my sermon, or his lady return my wife's civilities at church with a mutilated<sup>4</sup> curtesy. But we soon got over the uneasiness caused by such incidents, and usually in three or four days began to wonder how they vexed us.

My children, the offspring of temperance, as they were educated without softness, so they were at once well formed and healthy: my sons hardy and active, my daughters beautiful and blooming.

It would be fruitless to deny my exultation when I saw my little ones about me; but the vanity and the satisfaction of my wife were even greater than mine. When our visitors would say, "Well, upon my word, Mrs. Primrose, you have the finest children in the whole country," "Ay, neighbour," she would answer, "they are as Heaven made them, handsome enough, if they be good enough; for handsome is that handsome does." And then she would bid the girls hold up their heads; who, to conceal nothing, were certainly very handsome. Mere outside is so very trifling a circumstance with me, that I should scarcely have remembered to mention it, had it not been a general topic of conversation in the country.

The temporal<sup>5</sup> concerns of our family were chiefly committed to my wife's management; as to the spiritual I took them entirely under my own directions. The profits of my living, which amounted to but thirty-five pounds a year, I made over to the orphans and widows of the clergy of our diocese; for having sufficient fortune of my own, I was careless of temporalities,<sup>6</sup> and felt a secret pleasure in doing my duty without reward. I also formed a resolution of keeping no curate, and of being acquainted with every man

in the parish, exhorting the married men to temperance, and the bachelors to matrimony; so that in a few years it was a common saying that there were three strange wants at Wakefield—a parson wanting<sup>7</sup> pride, young men wanting wives, and alehouses wanting customers.

#### REVERSE OF FORTUNE.

But an evil day was in store for us. The merchant in whose hands my money was lodged became bankrupt, and paid only a shilling in the pound. The loss of fortune to myself alone would have been trifling: the only uneasiness I felt was for my family, who were to be humbled without an education to render them callous<sup>8</sup> to contempt.

Nearly a fortnight had passed before I attempted to restrain their affliction; for premature<sup>9</sup> consolation is but the remembrancer of sorrow. During this interval, my thoughts were employed on some future means of supporting them; and at last a small cure<sup>10</sup> of fifty pounds a year was offered me in a distant neighbourhood, where I could still enjoy my principles without molestation. With this proposal I joyfully closed, having determined to increase my salary by managing a small farm.

Having taken this resolution, my next care was to get together the wrecks of my fortune; and, all debts collected and paid, out of fourteen thousand pounds we had but four hundred remaining. My chief attention, therefore, was now to bring down the pride of my family to their circumstances; for I well knew that aspiring<sup>11</sup> beggary is wretchedness itself. "You cannot be ignorant, my children," cried I, "that no prudence of ours could have prevented our late misfortune; but prudence may do much in disappointing its effects. We are now poor, my fondlings, and wisdom bids us conform to our humble situation. Let us, then, without repining, give up those splendours with which numbers are wretched, and seek in humbler circumstances that peace with which all may be happy. The poor live pleasantly without our



help ; why, then, should not we learn to live without theirs ? No, my children,—let us from this moment give up all pretensions to gentility ; we have still enough left for happiness, if we are wise ; and let us draw upon content for the deficiencies of fortune.” As my eldest son was bred a scholar, I determined to send him to town, where his abilities might contribute to our support and his own.

The separation of friends and families is, perhaps, one of the most distressful circumstances attendant on penury. The day soon arrived on which we were to disperse, for the first time. My son, after taking leave of his mother and the rest, who mingled their tears with their kisses, came to ask a blessing from me. This I gave him from my heart, and which, added to five guineas, was all the patrimony I had now to bestow. “You are going, my boy,” cried I, “to London on foot, in the manner Hooker,<sup>12</sup> your great ancestor, travelled there before you. Take from me the same horse that was given him by the good bishop Jewel, this staff, and this book too,—it will be your comfort on the way : these two lines in it are worth a million,—‘I have been young, and now am old ; yet never saw I the righteous man forsaken, nor his seed begging their bread.’ Let this be your consolation as you travel on. Go, my boy : whatever be thy fortune, let me see thee once a year ; still keep a good heart, and farewell.” As he was possessed of integrity and a sense of honour, I was under no apprehensions from throwing him naked into the amphitheatre of life ; for I knew he would act a good part, whether vanquished or victorious.

<sup>1</sup> **Taken orders.**—Been ordained a clergyman.

<sup>2</sup> **Veracity.**—Truthfulness. Veracity and truth are, synonyms, that is, words having a similar, but not exactly the same meaning. *Veracity* is in regard to persons, *truth* in regard to things. We speak of the truth of history, but of the veracity of the historian.

<sup>3</sup> **The poor dependant.**—The poor relation.

<sup>4</sup> **A mutilated curtsey.**—A curtsey cut off short.

<sup>5</sup> **The temporal concerns.**—Affairs relating to this life [*L. tempus*, time] ; **spiritual**—those relating to the soul or spirit, and therefore to the next life.

<sup>6</sup> **Temporalities.**—Revenues of his office as vicar of a parish.

<sup>7</sup> **Wanting.**—Here means *without*.

<sup>8</sup> **Callous to contempt.**—Hardened

against insult and neglect [*L. callus*, hard skin].

\* **Premature consolation.**—Comfort offered too soon [*L. prae*, before, *maturus*, ripe].

<sup>10</sup> **A small cure.**—A small parish entrusted to his *care* [*L. cura*, care].

<sup>11</sup> **Aspiring beggary.**—Poverty trying to keep its head high.

<sup>12</sup> **Hooker.**—A great divine of the reign of Elizabeth.

## THE COTTER'S SATURDAY NIGHT.

[ROBERT BURNS (b. 1759, d. 1796) was the son of a small farmer in Ayrshire. He is eminently the national poet of Scotland. His poetry is musical and vigorous, breathing the spirit of manly independence and patriotism, and speaking the feelings of tenderness and sympathy.]

### I.

NOVEMBER chill blows loud wi' angry sigh ;  
 The short'ning winter day is near a close ;  
 The miry beasts retreating fra' the plough ;  
 The black'ning train o' craws to their repose :  
 The toil-worn cotter frae his labour goes,  
 This night his weekly moil is at an end,  
 Collects his spades, his mattocks, and his hoes,  
 Hoping the morn in ease and rest to spend,  
 And weary, o'er the moor, his course does hameward bend.

### II.

At length his lonely cot appears in view,  
 Beneath the shelter of an agèd tree ;  
 Th' expectant wee-things, toddlin, stacher through  
 To meet their dad, wi' flichterin' noise an' glee.  
 His wee bit ingle, blinkin' bonilie,  
 His clean hearth-stane, his thrifty wifie's smile,  
 The lisping infant prattling on his knee,  
 Does a' his weary carking cares beguile,  
 An' makes him quite forget his labour an' his toil.

### III.

Belyve, the elder bairns come drappin' in,  
 At service out, amang the farmers roun' ;  
 Some ca' the plough, some herd, some tentie rin  
 A cannie errand to a neebor town :

Their eldest hope, their Jenny, woman-grown,  
 In youthfu' bloom, love sparklin' in her e'e,  
 Comes hame, perhaps, to show a braw new gown,  
 Or deposite her sair-won penny fee  
 To help her parents dear, if they in hardship be.

## IV.

With joy unfeign'd brothers and sisters meet,  
 And each for other's weelfare kindly spiers ;  
 The social hours, swift-wing'd, unnoticed fleet ;  
 Each tells the uncoss that he sees and hears ;  
 The parents, partial, eye their hopeful-years ;  
 Anticipation forward points the view :  
 The mother, wi' her needle and her shears,  
 Gars auld claes look amaisht as well's the new ;  
 The father mixes a' with admonition due.

## V.

Their master's and their mistress's command,  
 The youngers a' are warn'd to obey ;  
 And mind their labours wi' an eydent hand,  
 And ne'er, though out o' sight, to jauk or play ;  
 "And O ! be sure to fear the Lord alway !  
 And mind your duty duly, morn and night !  
 Lest in temptation's path ye gang astray,  
 Implore His counsel and assisting might :  
 They never sought in vain that sought the Lord aright."

## VI.

But now the supper crowns their simple board,  
 The halesome parritch, chief o' Scotia's food ;  
 The soupe their only hawkie does afford,  
 That 'yont the hallan snugly chows her cood ;  
 The dame brings forth, in complimental mood,  
 To grace the lad, her weel-hain'd kebbuck, fell,  
 And aft he's prest, and aft he ca's it guid ;  
 The frugal wife, garrulous, will tell,  
 How 'twas a towmond auld, sin' lint was i' the bell.

## VII.

The cheerfu' supper done, wi' serious face,  
 They, round the ingle, form a circle wide ;  
 The sire turns o'er, with patriarchal grace,  
 The big ha'-Bible, ance his father's pride ;

His bonnet rev'rently is laid aside,  
His lyart haffets wearing thin and bare ;  
Those strains that once did sweet in Zion glide,  
He wales a portion with judicious care,  
And, " Let us worship God ! " he says, with solemn air.

## VIII.

Then kneeling down to Heaven's Eternal King,  
The saint, the father, and the husband prays ;  
Hope " springs exulting on triumphant wing,"  
That thus they all shall meet in future days :  
There ever bask in uncreated rays,  
No more to sigh, or shed the bitter tear,  
Together hymning their Creator's praise.  
In such society, yet still more dear ;  
While circling time moves round in an eternal sphere.

## IX.

Then hameward all take off their sev'ral way :  
The youngling cottagers retire to rest ;  
The parent pair their secret homage pay,  
And proffer up to Heaven the warm request,  
That He who stills the raven's clamorous nest,  
And decks the lily fair in flow'ry pride,  
Would, in the way His wisdom sees the best,  
For them and for their little ones provide ;  
But chiefly in their hearts with grace divine preside.

## X.

From scenes like these old Scotia's grandeur springs,  
That makes her loved at home, revered abroad :  
Princes and lords are but the breath of kings,  
" An honest man's the noblest work of God : "  
And certes, in fair virtue's heavenly road,  
The cottage leaves the palace far behind ;  
What is a lordling's pomp ? a cumbrous load,  
Disguising oft the wretch of human kind,  
Studied in arts of hell, in wickedness refined !

## XI.

O Scotia ! my dear, my native soil !  
For whom my warmest wish to Heaven is sent :  
Long may thy hardy sons of rustic toil  
Be bless'd with health, and peace, and sweet content.

And, oh, may Heaven their simple lives prevent  
 From luxury's contagion, weak and vile !  
 Then, howe'er crowns and coronets be rent,  
 A virtuous populace may rise the while,  
 And stand a wall of fire around their much-loved Isle.

TO THE TEACHER : *It will form a good exercise for the pupils to write out the poem in ordinary English with the aid of the following notes.*

- |  |  |
|--|--|
| I.<br><b>Sugh.</b> —A moaning sound.   | <b>Gars auld claes.</b> —Makes old clothes.  |
| II.<br><b>Stacher.</b> —Stagger.<br><b>Flichtering.</b> —Fluttering.<br><b>Wee bit ingle.</b> —Tiny little fireplace.<br><b>Carking cares.</b> —Anxious thoughts that eat into the mind like rust into iron. | V.<br><b>Eydent.</b> —Diligent.  |
| III.<br><b>Belyve.</b> —Soon.<br><b>Ca' the plough.</b> —Drive the plough.<br><b>Tentle rin.</b> —Run carefully.<br><b>Braw.</b> —Bright.<br><b>Her sair-won penny fee.</b> —Her hard-earned wages.          | VI.<br><b>Halesome parritch.</b> —Wholesome porridge.<br><b>Soupe.</b> —Spoonful.<br><b>Hawkie.</b> —Cow.<br><b>'Yont the hallan.</b> —Beyond the partition wall.<br><b>Weel-hain'd kebbuck.</b> —Well-saved cheese.<br><b>Towmond.</b> —Twelvemonth.<br><b>Lint was i' the bell.</b> —Flax was in the flower. |
| IV.<br><b>Spiers.</b> —Enquires.<br><b>Uncos.</b> —News; <i>unco</i> , something strange or new.<br><b>Shears.</b> —Scissors.  | VII.<br><b>His lyart haffets.</b> —The grey locks on his temples.<br><b>Wales.</b> —Chooses.   |

## ROCKS AND FOSSILS.

As Geography treats of the *surface* of the earth, so Geology investigates the composition of its *crust*—the materials of which this crust is composed, their origin and formation. The earth is about 8,000 miles in diameter; but of this enormous mass, only that within a few thousand feet of the surface is accessible to man—that is to say, only the earth's crust or shell.

The materials composing this crust are rocks or minerals of various kinds—as granite, slate, sandstone, marble, coal, chalk, and clay. Some of these rocks occur in regular layers called *strata*. These *stratified* rocks, as they are termed, always keep the same relative position; thus chalk is never found below limestone, nor coal below slate. If,

therefore, slate is found near the surface in any part of the country, it would be useless to sink a shaft in order to find coal. The next thing to be remarked about these stratified rocks is, that at one time they must have been soft and plastic, like sand or clay ; for we find embedded in them the remains of plants and animals. These remains have become petrified, or hardened into stone, and are known by the name of *fossils*.

The study of fossils has enabled the geologist to learn much about the past history of our globe. It used to be thought that the world was only a few thousand years old ; but it is now almost certain that it existed for millions of years before man was created. It is found that each system of rocks has its own peculiar fossils ; just as in the world at the present time animals and plants are distributed according to soil and climate. In the hard slates of Wales and Cumberland, for example, we find the impressions of shells, seaweed, and shell-fish ; whilst in other rocks are the remains of plants and trees ; in others, various kinds of strange lizards and numerous animals now extinct ; and in rocks more recently formed are the remains of animals nearly allied to those now in existence.

Thus the rocks may be regarded as the catacombs of various races of animals that have successively peopled the earth ; or, again, they may be looked upon as the pages of a book on which the Creator has imprinted the records of past ages. As one class of plants is peculiar to the dry plain, and another to the swampy morass—as one family belongs to a temperate, and another to a tropical region—so, from the character of the fossil plants, we are enabled to arrive at some knowledge of the state of the earth when they flourished. In the same manner with animals : each tribe has its locality determined by the character of food and climate adapted to it ; each family has its own peculiar structure for running, flying, swimming, plant-eating or flesh-eating, as the case may be ; and thus, by observing the structure of the

fossil-animals, we can arrive at certain conclusions respecting the condition of the world at different epochs.

By comparing the fossils found in the various systems of rocks, we find that there has been a gradual progress from lower to higher forms of existence in the course of ages. In the oldest rocks of Great Britain—taking those as the oldest which occupy the lowest position—we find the remains of shell-fish ; in those immediately above them traces of fishes with back-bones ; next we find remains of reptiles, and then birds ; while in the rocks of more recent formation we find species belonging to every existing order of animals except man. The same law holds with respect to fossil vegetation. The seaweeds and mosses of the earlier systems are succeeded by the ferns and firs of a semi-tropical climate in the coal-measures ; and these, in turn, give place to the trees and plants of temperate regions in the rocks of a later date.

It thus appears that, during the countless ages that preceded the creation of man, the earth must have undergone great and numberless changes in climate and in the distribution of land and water. In this world of ours there is incessant change, and the solid fabric of the world itself is no exception to the rule. Everywhere, and at all times, the earth is, and always has been, subject to waste and repair,—here wasted and worn down by frosts, rains, rivers and tides, and there built up again by the deposition of the materials thus ground down and washed away.

The rocks thus formed are the stratified rocks, containing fossils, of which we have spoken. Rocks of this kind are also called *aqueous* rocks, being formed by the agency of water (Lat. *aqua*, water).

But there is another class of rocks, like granite, which has been formed under the action of fire. It is supposed that the internal parts of the earth are in the state of melted lava, such as pours over the crater of a volcano during an eruption, and that from the Creation this *liquid* rock has been gradually cooling and becoming *solid* rock. The mass

of rock thus formed has not always been allowed to repose in its ancient bed ; but the force due to the fire underneath has again and again shattered the earth's crust, and lifted the internal rocks high into the air, so as to form volcanoes and ordinary mountains. The rocks thus formed by the agency of fire are termed *igneous* rocks (Lat. *ignis*, fire). Rocks of this class are, of course, void of fossils.

Thus we have two distinct classes of rocks, differing in character and origin,—the one formed by the agency of water, and the other by the agency of fire ; the one stratified, the other not so ; the one abounding in fossils, the other having none. It is also clear that fire and water are two forces, serving to counteract each other to some extent in their action upon the crust of the earth ; for while water is always wearing down the mountains and carrying the waste material into the ocean, where it collects at the bottom, the fire within the bowels of the earth often upheaves, by its energy, rivers of melted lava, and occasionally gives birth to a new mountain. Thus, in 1759 a celebrated volcano near Mexico, called Jorullo, made its first appearance.

**I. Igneous Rocks**—Either *Granitic*, like granite, or *Trappean*, like trap and basalt.

**II. Stratified Rocks.**—Arranged in the order of formation, beginning with the oldest :—

1. **Laurentian System.**—The rocks are hard and crystalline, such as gneiss and quartz.

2. **Cambrian System.**—The rocks are chiefly sandstones and flagstones, and fossils of a marine character.

3. **Silurian System.**—Roofing slates and flagstones, with ores of mercury, gold, and silver. Fossils chiefly shell-fish.

4. **Devonian System.**—The rocks chiefly sandstone of a reddish colour, which is due to the iron found in them. Among the fossils are various fishes.

5. **Carboniferous System.**—The rocks consist of sandstones, clays, shales, and limestones. The minerals are very valuable : marble, lead, and silver, and especially iron and coal. The fossils are mainly pines, palms, tree ferns, reeds,

and mosses, from which our coals have been formed.

6 & 7. **Permian System and Triassic System.**—Often classed together, as the New Red Sandstone. Traces have been discovered of footprints of a kind of lizard and of a gigantic bird, allied to the ostrich.

8. **Oolitic System.**—The minerals include marble, alum, jet (a hard variety of coal) and fuller's earth. Traces of marsupial (pouched) animals allied to the opossum and kangaroo. Fossils of huge reptiles very abundant.

9. **Cretaceous System.**—It is composed chiefly of sands, dark clays, and thick beds of chalk (L. *creta*, chalk). There are remains of certain mammals, supposed to be those of monkeys.

10. **Tertiary System.**—This includes four groups of most recent formation. It is so-called, because originally the other stratified rocks were divided into two systems only, under the terms Primary and Secondary. In the Tertiary system we meet with fossils of the higher species of plants and animals.



### VOLCANOES.

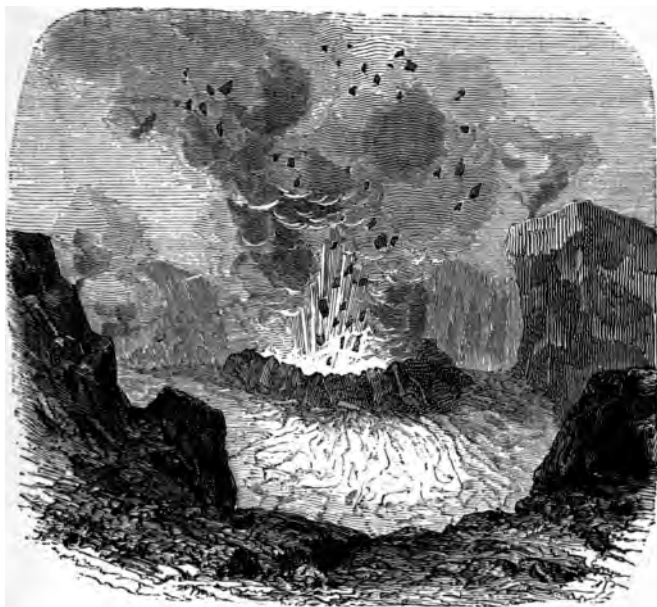
**VOLCANOES** are mountains like huge conical furnaces, which belch forth, at certain times, volumes of smoke, sheets of flame, blocks of rock, showers of cinders, and rivers of lava. When the volcano is thus in a state of eruption, it is an object of terror to all spectators ; for the lava pours over the sides of the mountain like so many cascades of fire, consuming everything in its path. Indeed, it often happens that the lava makes its way out before reaching the crater (as its fire-spouting mouth is called), and having burst through the flank of the mountain, near its base, forms a small additional volcano, and spreads havoc on all the country round.

In high volcanic mountains we often find at the base of the great cone a series of small volcanoes : Etna, for instance, which is 11,000 feet high, has quite a family of small volcanoes scattered over its flanks. In fact, it is these that have in particular ravaged the surrounding district.

The most frightful eruption of Etna in modern times was produced by one of these young volcanoes, the Monte Rosa. From it issued in 1771 the long river of lava which rolled its burning waves over a distance of nine leagues, fired great part of Catania, and only ceased to destroy when it plunged into the sea amidst a most tumultuous struggle between the waves and fire.

Vesuvius has worked still greater ruin. Within the last century, this volcano, in one of its throes, has ejected lava-floods which have annihilated small towns and villages. In 1794 its burning waves submerged all the houses in Torre del Greco, even rising above their roofs. One eruption of Vesuvius, which took place A.D. 79,<sup>1</sup> is especially celebrated for the destruction of two rich and important cities which rose on its sides, Herculaneum<sup>1</sup> and Pompeii.<sup>2</sup> The former was in part invaded by a stream of lava, the second was completely buried under a prodigious shower of ashes.

The loftier volcanoes are, the less frequent are their eruptions. The lava which they vomit forth has to ascend a much higher chimney, and so a much greater force is required than in the others. Thus one of the smallest of all, Stromboli,<sup>3</sup> is always throwing out flames; since the days of Homer<sup>4</sup> it has served as a beacon to sailors approaching the Æolian Islands. On the contrary, the volcanoes of the



Cordilleras,<sup>5</sup> which are six or eight times as high, seem condemned to long intervals of repose, and in many cases only break out from century to century.

The lofty volcanoes which lord it over the frozen summits of the Andes present a spectacle of awful grandeur to the traveller who has the perseverance and courage to reach the top. The crater of some of these fiery giants is a pro-

digious basin, large enough "for a hundred horsemen to manœuvre in the presence of a thousand persons." Descending far enough to look down into the funnel of the mountain, the traveller is sometimes appalled with the sight of a burning wave rising, as if to destroy him, and then sinking again on the lake of fire within.

Most volcanoes, however, are as harmless as old lions that have become toothless; for the majority of them have spent all their energy, their fires have died out or become extinct. The number of active volcanoes is about 250, and most of these are found in the great volcanic belt<sup>6</sup> which fringes the Pacific Ocean. Volcanoes, indeed, are almost always situated in the neighbourhood of the sea.

This fact has suggested the cause of volcanic action. The eruption of a volcano is the result of some violent explosion in the bowels of the earth. This explosion is very probably caused by steam. Water, we know, finds its way to great depths; for it sometimes rises again in the form of boiling springs. Now if, through the cracks and crevices which abound in the earth, water sank far enough into the interior of the earth to come in contact with the fire which always rages there, it would be converted into steam; and steam, when exposed to great heat, becomes as explosive as gunpowder. An explosion, or series of explosions, is the inevitable result; and the burning lava, or liquid rock, is ejected where it can most easily find vent, and that is through the gullet of the nearest volcano. Volcanoes, therefore, may be regarded as safety-valves,<sup>7</sup> giving a free outlet to the burning matter driven on by the steam, which would otherwise rend the crust of the earth, and find an outlet for itself, causing meanwhile a destructive earthquake.

<sup>1</sup> **Herculaneum.**—It was buried A.D. 79, under showers of ashes and streams of lava, from 70 to 100 feet below the surface. It was accidentally discovered by the sinking of a well in 1720; many buildings and works of art have been brought to light.

<sup>2</sup> **Pompeii.**—It was buried A.D. 79 by successive showers of ashes from the volcanoes. The excavation of it in modern times has thrown great light upon the life of the old Romans; such as the construction of their houses, and the kind

utensils then in use. About half the city is now exposed to view.

\* **Stromboli.**—One of the Lipari islands, N.E. of Sicily, where, according to Homer, Cæolus, the god of the winds reigned.

\* **Homer.**—The great Epic poet of Greece, wrote the Iliad and the Odyssey; flourished about 850 B.C.

\* **Cordilleras.**—The chief volcanoes this range are *Antisana*, 19,000, and *Cotopaxi*, 18,800 feet, near the city of Quito in South America. Forty-five volcanoes have been counted between this city and the sea-coast.

\* **Volcanic belt.**—This belt extends throughout the Andes, Central America,

Mexico, and along the north-west of North America; it is then continued in the island groups that fringe the eastern coast of Asia, through Formosa and the Philippine Islands down to the Indian Archipelago, where Sumatra, Java, Floris, and Sumbawa exhibit a perfect rookery of volcanoes.

\* **Safety valves.**—In every steam-engine is a safety-valve, made to open of itself whenever the steam has reached a certain pressure; and thus by permitting some of the steam to escape, it keeps down the pressure of the steam within safe limits, and prevents an explosion of the boiler.

## EARTHQUAKES.

EARTHQUAKES are due to the same cause as volcanic eruptions, but they are more terrible in their action. No phenomenon, indeed, offers such a dreadful spectacle as a great earthquake. The traveller who explores a dangerous volcano has generally timely warnings of its intention to emit liquid fire; but an earthquake, in the twinkling of an eye, topples down towers and overturns houses.

The celebrated earthquake at Lisbon began on the 1st November, 1755, without the least warning. A sound like that of thunder was heard underground, and immediately afterwards a violent shock threw down the greater part of the city; and in the course of about six minutes sixty thousand persons perished. The sea at first retired, and left dry the bar at the mouth of the Tagus; it then rolled in, rising fifty feet above its former level. A large crowd of people had fled for safety to the new quay, where they might be beyond the reach of the falling houses. Suddenly the quay sank down, with all the people on it, and not one of the dead bodies was ever recovered. A great number of boats and small vessels, anchored near the spot, were also swallowed up, and no fragment of these ever rose to the surface. It is very probable, therefore, that a deep narrow

chasm opened its mouth, and closed again after swallowing the vessels and the crowded quay.

The same phenomenon was observed in the earthquake of Calabria,<sup>1</sup> which commenced in February, 1783, and repeated its shocks over an interval of nearly four years. In many places the ground was rent by fissures, which opened and then closed again, so that houses, trees, cattle, and men were engulfed. By this series of earthquakes the aspect of the country in some parts was entirely changed. In one case an extensive olive-ground and orchard were hurled a distance of two hundred feet, into a valley sixty feet in depth. A small inhabited house, standing on the mass of earth carried down, was uninjured; and the olive trees continued to grow on the land, and bore the same year an abundant crop. In many cases disputes naturally arose as to whom the property, which had thus shifted its place, should belong.

Earthquakes are by no means unfrequent in Great Britain, but they are generally very slight. In March, 1871, the northern counties of England, and especially Lancashire, were more seriously visited. The undulation<sup>2</sup> of the earth was clearly perceptible, and houses shook sufficiently to set the bells ringing and to throw down glass and china from the shelves of the cupboards.

The west coast of America is particularly subject to earthquakes. In 1868, a series of very violent earthquakes shook the west coast of South America. The first shock was felt at Arica, a town on the coast of Peru; on the 13th August, 1868, the sea presented a very dull appearance, the air was unusually heavy, the gulls and other sea-fowl, after circling aloft with loud screams, at length quitted the bay. About a quarter to five in the afternoon a tremendous shock was felt. The houses were thrown down, the earth opened in fissures two or three inches in width, and belched forth dust which darkened the air. The sea at first seemed to retire, and all the vessels in the bay were carried out to

sea, anchors and chains snapping like packthread. In a few minutes, however, the outward current was stopped by a huge wave, about fifty feet high, which came in with a mighty rush, carrying all before it. The quay and mole were crowded with terror-stricken inhabitants, and before they could escape, two hundred were swept away. Several vessels were wrecked; but an American gunboat—the *Waterloo*—was lifted up by an immense billow, and carried half a mile inland. There she was landed among the sandhills, perfectly upright, without a scratch, and not a man lost. At Callao, the port of Lima,<sup>3</sup> three terrible shocks were felt, and the following graphic description is from the pen of an eye-witness:—"For full five minutes the heavy, rolling, rumbling shock continued, rocking the furniture, and even the houses themselves, with such violence that persons could hardly keep their feet, and an instantaneous rush was made for the street. Here the sight beggared<sup>4</sup> description: all the affrighted people kneeling and praying in the open streets, crossing themselves, and falling in deep swoons full length on the pavement; women kneeling with both arms upraised, screaming and crying; the great bell of Santa Rosa church tolling and tolling, while the terrified people fled in crowds within the sacred enclosure, and the great steeple swayed and rocked as if every moment it would fall down and crush the affrighted masses. As far as the eye could see down the long narrow street, the very street rose and fell in long billowy undulations; while out in the bay the ships tossed up and down under the violence of the tremendous internal jar."<sup>5</sup>—[Abridged from Lawson's *Physical Geography* (Oliver & Boyd)].

<sup>1</sup> **Calabria.**—The peninsula in the S.E. of Italy.

<sup>2</sup> **Undulation.**—Up-and-down movement like that of a wave [L. *unda*, wave].

<sup>3</sup> **Lima.**—The capital of Peru.

<sup>4</sup> **Beggared description.**—Made any description seem poor and beggarly.

<sup>5</sup> **Internal jar.**—The clash or struggle within the earth.

## RECOLLECTIONS OF EARLY CHILDHOOD.

## I.

THERE was a time<sup>1</sup> when meadow, grove, and stream,  
 The earth, and every common sight,  
     To me did seem  
     Apparelled in celestial light,  
 The glory and the freshness of a dream.  
     It is not now as it hath been of yore :—  
     Turn wheresoe'er I may,  
     By night or day,  
 The things which I have seen I now can see no more.

## II.

The rainbow comes and goes,  
     And lovely is the rose,  
     The moon doth with delight  
 Look round her when the heavens are bare :  
     Waters on a starry night  
     Are beautiful and fair ;  
     The sunshine is a glorious birth,  
     But yet I know, where'er I go,  
 That there hath passed away a glory from the earth.

## III.

Now, while the birds thus sing a joyous song,  
     And while the young lambs bound  
     As to the tabor's sound,  
 To me alone there came a thought of grief :  
 A timely utterance gave that thought relief,  
     And I again am strong :  
 The cataracts blow their trumpets from the steep ;  
 No more shall grief of mine the season wrong ;  
 I hear the echoes through the mountains strong,  
 The winds come to me from the fields of sleep,  
     And all the earth is gay ;  
     Land and sea  
     Give themselves up to jollity,  
     And with the heart of May  
     Doth every beast keep holiday ;—  
     Thou child of joy,  
 Shout round me, let me hear thy shouts, thou happy  
     Shepherd-boy !

## IV.

Ye blessed creatures, I have heard the call  
Ye to each other make ; I see  
The heavens laugh with you in your jubilee ;  
My heart is at your festival,  
My head hath its coronal,<sup>2</sup>  
The fulness of your bliss, I feel—I feel it all.  
Oh evil day ! if I were sullen  
While earth herself is adorning,  
This sweet May-morning,  
And the children are culling  
On every side,  
In a thousand valleys far and wide,  
Fresh flowers ; while the sun shines warm,  
And the babe leaps up on his mother's arm :—  
I hear, I hear, with joy I hear !  
—But there's a tree, of many, one,  
A single field which I have looked upon,  
Both of them speak of something that is gone :  
The pansy at my feet  
Doth the same tale repeat :  
Whither is fled the visionary gleam ?  
Where is it now, the glory and the dream ?

## V.

Our birth is but a sleep, and a forgetting :  
The soul that rises with us, our life's star,  
Hath had elsewhere its setting,  
And cometh from afar :  
Not in entire forgetfulness,  
And not in utter nakedness,  
But trailing clouds of glory do we come  
From God, who is our home :  
Heaven lies about us in our infancy !  
Shades of the prison-house begin to close  
Upon the growing boy,  
But he beholds the light, and whence it flows,  
He sees it in his joy ;  
The youth, who daily farther from the east  
Must travel, still is Nature's priest,<sup>3</sup>  
And by the vision splendid  
Is on his way attended ;  
At length the man perceives it die away,  
And fade into the light of common day.



## VI.

Earth fills her lap with pleasures of her own ;  
 Yearnings she hath in her own natural kind,  
 And, even with something of a mother's mind,  
     And no unworthy aim,  
 The homely nurse doth all she can  
 To make her foster-child, her inmate man,  
     Forget the glories he hath known,<sup>1</sup>  
 And that imperial palace whence he came.

## VII.

Behold the child among his new-born blisses,  
 A six years' darling of a pigmy<sup>2</sup> size !  
 See, where 'mid work of his own hand he lies,  
 Fretted by sallies of his mother's kisses,  
 With light upon him from his father's eyes !  
 See, at his feet, some little plan or chart,  
 Some fragment from his dream of human life,  
 Shaped by himself with newly-learnéd art ;  
     A wedding or a festival,  
     A mourning or a funeral ;  
     And this hath now his heart,  
 And unto this he frames his song :  
     Then will he fit his tongue  
 To dialogues of business, love, or strife ;  
     But it will not be long  
     Ere this be thrown aside,  
     And with new joy and pride  
 The little actor<sup>3</sup> cons another part ;  
 Filling from time to time his 'humorous stage  
 With all the persons, down to palsied age,  
 That life brings with her in her equipage ;  
     As if his whole vocation  
 Were endless imitation.

## WORDSWORTH.

<sup>1</sup> **There was a time.**—The poet is lamenting that his spirit is not so much in harmony with joyous Nature as when he was a boy.

<sup>2</sup> **Coronal** (*cor-ol'-nal*).—A garland worn round the head on festal occasions.

<sup>3</sup> **Nature's priest**—So called because the boy delights in the sights and sounds of Nature, and the joy he feels is the best praise and worship that can be rendered her.

<sup>4</sup> **Forget the glories, etc.**—A mere poetic fancy that the soul has lived in a happier world before taking up its abode on earth.

<sup>5</sup> **Pigmy size.**—Literally, of the size of a fist [*Gr. pygme*, the fist].

<sup>6</sup> **The little Actor cons, etc.**—The child is compared to an actor, who having played one part, then learns another. Shakspeare says :—

“All the world's a stage,  
 And all the men and women merely  
 players,—  
 They have their exits, and their entrances;  
 And one man in his time plays many  
 parts,  
 His acts being seven ages.”

AS YOU LIKE IT.

**DEATH AND CHARACTER OF EDWARD VI.**

[BURNET (b. 1643, d. 1715) is eminent as a theologian and historian. His *History of the Reformation* is a standard work upon the subject.]

IN the beginning of this year (1553), the young king<sup>1</sup> was seized with a deep cough, and all medicines that were used did rather increase than lessen it. He was so ill when the parliament met, that he was not able to go to Westminster, but ordered their first meeting and the sermon to be at Whitehall. In the time of his sickness, Bishop Ridley<sup>2</sup> preached before him, and took occasion to run out much on works of charity, and the obligation that lay on men of high condition to be eminent in good works. This touched the king to the quick ; so that, presently after the sermon, he sent for the bishop. And after he had commanded him to sit down by him, and be covered, he resumed most of the heads of the sermon, and said he looked upon himself as chiefly touched by it. He desired him, as he had already given him the exhortation in general, so to direct him to do his duty in that particular. The bishop, astonished at this tenderness in so young a prince, burst forth in tears, expressing how much he was overjoyed to see such inclinations in him ; but told him he must take time to think on it, and craved leave to consult with the lord mayor and court of aldermen. So the king writ by him to them to consult speedily how the poor should be relieved. They considered there were three sorts of poor : such as were so by natural infirmity or folly, as impotent persons, and madmen or idiots ; such as were so by accident, as sick or maimed persons ; and such as, by their idleness, did cast themselves into poverty. So the king ordered the Greyfriars' Church, near Newgate, with the revenues belonging to it, to be a house for orphans ; St. Bartholomew's, near Smithfield, to be a hospital ; and gave his own house of Bridewell to be a place of correction and work for such as were wilfully idle. He also confirmed and enlarged the grant for the hospital of St. Thomas<sup>3</sup> in South-

wark, which he had erected and endowed in August last. And when he set his hands to these foundations, which was not done before the 5th of June this year, he thanked God who had prolonged his life till he had finished that design. So he was the first founder of those houses, which, by many great additions since that time, have risen to be amongst the noblest in Europe.

He expressed, in the whole course of his sickness, great submission to the will of God, and seemed glad at the approaches of death ; only the consideration of religion and the church touched him much ; and upon that account he said he was desirous of life. His distemper rather increased than abated ; so that the physicians had no hope of his recovery. Upon which a confident<sup>4</sup> woman came, and undertook his cure if he might be put into her hands. This was done, and the physicians were put from him, upon this pretence—that they having no hopes of his recovery, in a desperate case desperate remedies were to be applied. On the 6th of July, his spirits and body were so sunk that he found death approaching ; and so he composed himself to die in a most devout manner. His whole exercise was in short prayers and ejaculations. The last that he was heard to use was, in these words : “ Lord God, deliver me out of this miserable and wretched life, and take me among Thy chosen ; howbeit, not my will, but Thine be done ; Lord, I commit my spirit to Thee. O Lord, Thou knowest how happy it were for me to be with Thee ; yet, for Thy Chosen’s sake, send me life and health that I may truly serve Thee. O my Lord God, bless my people, and save Thine inheritance.” Seeing some about him, he seemed troubled that they were so near, and had heard him ; but with a pleasant countenance he said he had been praying to God. And soon after, the pangs of death coming upon him, he said to Sir Henry Sidney, who was holding him in his arms : “ I am faint ; Lord have mercy on me, and receive my spirit,”—and so he breathed out his innocent soul,

Thus died King Edward VI., that incomparable<sup>5</sup> young prince. He was then in the sixteenth year of his age, and was counted the wonder of that time. He was not only earned in the tongues,<sup>6</sup> and other liberal sciences, but knew well the state of his kingdom. He kept a book, in which he writ the characters that were given him of all the chief men of the nation, all the judges, lord-lieutenants, and justices of the peace over England ; in it he had marked down their way of living, and their zeal for religion. He had studied the matter of the mint, with the exchange and value of money ; so that he understood it well, as appears by his journal. He also understood fortification, and designed well. He knew all the harbours and ports, both of his own dominions, and of France and Scotland ; and how much water they had, and what was the way of coming into them. He had acquired great knowledge of foreign affairs ; so that he talked with the ambassadors about them in such a manner that they filled all the world with the highest opinion of him that was possible ; which appears in most of the histories of that age. He had great quickness of apprehension ; and, being mistrustful of his memory, used to take notes of almost everything he heard ; he writ these first in Greek characters, that those about him might not understand them, and afterwards writ them out in his journal. He had a copy brought him of everything that passed in council, which he put in a chest, and kept the key of that always himself.

In a word, the natural and acquired perfections of his mind were wonderful ; but his virtues and true piety were yet more extraordinary. He expressed great tenderness to the miseries of the poor in his sickness, as hath been already shown. He took particular care of the suits of all poor persons ; and gave Dr. Cox special charge to see that their petitions were speedily answered, and used oft to consult with him how to get their matters set forward. He was an exact keeper of his word ; and therefore, as appears by his journal, was most careful to pay his debts and to keep his

credit, knowing that to be the chief nerve of government ; since a prince that breaks his faith, and loses his credit, has thrown up that which he can never recover, and made himself liable to perpetual distrusts and extreme contempt. He had, above all things, a great regard to religion. He took notes of such things as he heard in sermons, which more especially concerned himself ; and made his measures of all men by their zeal in that matter. All men who saw and observed these qualities in him, looked on him as one raised by God for most extraordinary ends ; and, when he died, concluded that the sins of England had been great, that had provoked God to take from them a prince under whose government they were like to have seen such blessed times. He was so affable and sweet-natured, that all had free access to him at all times ; by which he came to be most universally beloved ; and all the high things that could be devised were said by the people to express their esteem of him.

\* **The young king.**—Succeeded his father, Henry VIII., in 1547, and died, 1553, at the age of sixteen.

\* **Bishop Ridley.**—Bishop of London; during the reign of Mary burnt, with Bishop Latimer, at Oxford.

\* **St. Thomas.**—This hospital is now a handsome and most extensive set of buildings on the Thames embankment, opposite the Houses of Parliament.

\* **A confident woman.**—One who had confidence in her own powers, feeling sure she could heal the king.

\* **Incomparable.**—Beyond comparison (on account of his worth and goodness).

\* **The tongues.**—The languages, such as Greek and Latin.

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## SELF-KNOWLEDGE.

[From a speech by Mr. Disraeli, created Lord Beaconsfield in 1876.]

HE who would succeed in life, and obtain that position to which his character and capacity entitle him, has need of two kinds of knowledge—one of which is a knowledge of self. It would seem at the first blush that self-knowledge is not very difficult of attainment. If there be any subject on which a person can arrive at accurate conclusions, it should be his own disposition and talents. But it is not so. The period of youth in this respect is one of great

doubt and difficulty. It is a period alike of false confidence and unreasonable distrust, of perplexity, of despondency, and sometimes of despair.

How, then, is this self-knowledge to be acquired, and where are we to obtain assistance in this quest? From the family circle? Its incompetency in this respect is a proverb.<sup>1</sup> Perception of character is always a rare gift, but around the domestic hearth it is almost unknown. Every one is acquainted with the erroneous estimates of their offspring which have been made even by illustrious parents. The silent but perhaps pensive boy is looked upon as a dullard, while the flippancy of youth in a commonplace character is interpreted into the vivacity of genius, which may in time astonish the world.

A better criterion should be found in the judgment of contemporaries<sup>2</sup> who are our equals. But the generous ardour of youth is not favourable to critical<sup>3</sup> discrimination. Its sympathy is quick; it admires and applauds; but it lavishes its applause and admiration on qualities which are often not intrinsically<sup>4</sup> important,—and it always exaggerates. And thus it is that the hero of school and of college often disappoints expectation in after life.

\* \* \* \* \*

I believe after all it will be found that it is best and inevitable in the pursuit of self-knowledge that we should depend on self-communion. In most instances there will be many errors and much self-deception in estimating one's own worth and capacity. One of the fruitful sources of that self-deception is to be found in the susceptibility<sup>5</sup> of the youthful mind. The sympathy<sup>6</sup> is so quick that we are apt to transfer to our own persons the qualities which we admire in others. If it be the age of a great poet, his numbers<sup>7</sup> are for ever resounding in our ears, and we sigh for his laurels; if a military age, nothing will content us but to be at the head of armies; if an age of oratory, we would fain be a brilliant speaker.

In some instances the predisposition may be true, but it is in the nature of things that the instances must be rare. In ninety-nine cases out of a hundred the feeling is not idiosyncratic<sup>8</sup> but mimetic, and we have mistaken a quick sensibility for creative power.

Then comes to a young man the period of disappointment and despondency. To publish poems which no one will read, to make speeches to which no one will listen—this is, indeed, bitter; but all depends upon how the lesson is received. A weak spirit will not survive this catastrophe of his self-love. He will shrink into chronic<sup>9</sup> despondency, and, without attempting to rally, he will pass through life as a phantom, and be remembered when an old man only by the golden promise of his deceptive youth. But a man of sense will accept these consequences, however apparently mortifying, with courage and candour. He will dive into his own intelligence, he will analyse the circumstances of his failure, he will discriminate how much was occasioned by indigenous<sup>10</sup> deficiencies, and how much may be attributed to external and fortuitous<sup>11</sup> circumstances. And in this severe introspection<sup>12</sup> he may obtain that self-knowledge he requires; his failures may be the foundation of his ultimate success, and in this moral and intellectual struggle he may discover the true range of his powers and the right bent of his character and capacity.

<sup>1</sup> **A proverb.**—Such as "Every mother thinks her geese are swans," or "A prophet is not without honour save in his own country and in his own house."

<sup>2</sup> **Contemporaries . . . equals.**—Those of the same age and position, and living at the same time [L. *con*, together, *tempus*, time].

<sup>3</sup> **Critical discrimination.**—Well-balanced judgment.

<sup>4</sup> **Intrinsically important.**—Having a value from its nature—not from mere accident. Thus, a book is *intrinsically* valuable when it has real worth in itself, and *extrinsically* valuable when its worth arises from the fact that it is a keepsake [L. *intra*, within; *extra*, without].

<sup>5</sup> **Susceptibility.**—Quality of being easily impressed, or affected.

<sup>6</sup> **Sympathy . . . quick.**—There is such a readiness to feel and think like others we come in contact with.

<sup>7</sup> **His numbers . . . laurels.**—The poet's "numbers" are his harmonious lines. His "laurels" are his successes; in ancient times the poet who gained the prize was crowned with *laure*.

<sup>8</sup> **Idiosyncratic.**—Peculiar to one-self; *mimetic*, imitative.

<sup>9</sup> **Chronic.**—Lasting a long time, not temporary [Gr. *chronos*, time].

<sup>10</sup> **Indigenous.**—Inborn, arising from the nature of anything.

<sup>11</sup> **Fortuitous.**—Happening by chance [L. *fortis*, chance].

<sup>12</sup> **Introspection.**—A looking into oneself [L. *intro*, within; *specio*, to look].

**"FROM SMALL BEGINNINGS."**

HUNTLEY AND PALMER'S biscuit factory, at Reading, is a representative institution of its kind, worthy, as such, of special notice. It illustrates the capacity of growth and expansion which manufacturing establishments in England possess over those of other countries. "For home and exportation" are words of great meaning here and now. The circle of trade sweeping around an English factory touches either pole and the outward rim of either hemisphere, and that without going off British dominion. One-fourth of the whole population of the globe is embraced in that dominion, including all kinds of races, climates, wants, tastes, appetites, and fancies. All these diversities diversify articles of trade *ad infinitum*.<sup>1</sup>

If Birmingham makes brass heads and nose-jewels for African belles,<sup>2</sup> Sheffield makes sheep-shears for Australian wool-growers. Indeed, every English manufacturer who can make a good thing, be it a lucifer match, a hatchet, or a doll's eye, has what might be called a *home market* of prodigious range.

Three great fields measure and indicate the circumference of this domestic commerce—India, Australia, and North America. All the spaces between contain certain smaller "dependencies" or centres of colonial trade. Doubtless this dominion numbers a larger population than inhabited the entire globe in Cæsar's day. These 250,000,000 persons, their wants, tastes, and fancies, the English manufacturer has in his eye when he sets his mind, hand, and capital to the production of articles of human necessity and comfort. He counts upon them as making his home market, nearly as much as if they all lived, with their climates and wants, on the island of Great Britain. Then he has as free access as any other outsider to the markets of all foreign countries, and he can run neck and



neck, and generally better too, in the competition for their trade.

Still, to build up so large and successful a business in face of eager and crowded competition, implies a genius, perseverance, good faith, and good hope which are pleasant and instructive to contemplate. All these qualities seem to have distinguished the origin and growth of Huntley and Palmer's biscuit factory in a remarkable degree. Nothing is more interesting and encouraging in the chronicles of wealth and prosperity than the "small beginnings" of great ends.

In the year 1822, Thomas Huntley, a young "Friend,"<sup>3</sup> commenced the making of biscuits in a very limited way in Reading. It was truly one of the small beginnings from which many an exemplar-man has gone on to a great ending. One sack of flour kept his little oven a-going for six months, or met all the demand his biscuits could create. One quart of milk a day was the regular ration of that element for them. His market was confined to the town, and it was supplied from a hand-basket by the first boy he employed, who has come down with the establishment through all the stages of its expansion to its present magnitude. He was a "Friend" indeed, in whom there was no guile; and he made good biscuits. The number who thought this of him and them increased gradually and steadily. And this made his oven grow; and this hand-basket grew to a cart; then it came to a sack of flour a month, then to a sack a week; on a little farther, to a sack a day.

At this stage of progression, he took in as partner Mr. George Palmer, then a young man full of inventive mind<sup>4</sup> and executive energy, who believed the little enterprise could be built up into a great business. He brought a small steam-engine and some other machinery to bear upon the work. This inaugurated the mechanical age of the establishment. His taste was eclectic,<sup>5</sup> and the combination of forces now applied to the elaboration<sup>6</sup> of dough is truly

wonderful. The great bakery is really and truly a museum of machinery in the busiest occupation. Machinery does nearly everything but the thinking part of the process. Everything "goes with a crank," and the crank, or its equivalent, is turned or moved by steam. Even the iron bottoms of the ovens rotate like revolving shutters, each strip or slot carrying with it a row of biscuits, taking them on in dough at one side and dropping them down at the other side of the oven baked with perfect evenness.

The machinery for making the fancy biscuits is exceedingly ingenious, and its operations amusing. An instrument like a squirt or syringe is employed in making the *macaroons*. The tin barrel is filled with paste instead of water, and the operator holds it with his left hand, with the ramrod or piston against his breast, and, with a sharp knife in his right, he cuts off in even bits the jet of dough he forces through the muzzle of his "shooting-iron." The precision and rapidity with which he manages both piston and knife, and drops the little fluted bits of highly-flavoured dough in regular rows on the iron baking-plates before him, are really wonderful.

The patterns, devices, shapes, sizes, and savours of the biscuits and cakes produced in this great manufactory are almost of endless and inconceivable variety. Whoever has explored a can of Huntley and Palmer's "assorted" will testify to this fact. They go to all countries and climates, from Greenland to Cochin China, and from Nova Zembla to New Zealand inclusive. Arctic explorers, Australian shepherds, and African lion-hunters know all about them, and it is not certain that they are not beginning to give a better taste and habit to cannibal pagans. They constitute the *vade mecum*<sup>1</sup> of railway travellers, pic-nickers, sportsmen of the rod and gun, and tourists innumerable.

Nor does the establishment confine its ministry to the common and daily wants of the million, stationary and locomotive. It serves a lunch to the smock-frocked plough-

man by the hedge, and a bridal loaf for the wedding of kings and queens. It has really grown to this consummation. I was taken into the wedding-cake room, and was surprised to find that it had such affiliations with domestic happiness in high places. Here they had a French artist engaged in getting up designs for bridal loaves of every size, description, and price known to the wedding-feast, from the cottage to the palace. These they send to order all embellished for the table, with cupids,<sup>8</sup> doves, trumpets, bows and arrows, and other allegorical<sup>9</sup> emblems.

A few figures will convey some approximate idea of what this great bakery is and does. Its ovens give out daily sufficient biscuits to cover two acres, or, in round numbers, about 1,000,000. Besides an incredible amount of flour, 30,000 eggs and 3,000 gallons of milk are consumed weekly. The number of "hands" employed is about 500, including twenty carpenters and four coopers, always at work repairing and making boxes and casks for the transportation of the biscuits; while the manufacture of the tins required makes a large and independent business of itself.

It was to me a pleasant and instructive visit; all the more from the proof and illustration it supplied of what steady hope, faith, industry, skill, and unswerving probity<sup>10</sup> may accomplish when all concentrated upon a business of the smallest beginning. The moral worth of such an example cannot be appreciated too highly. As Corporal Trim<sup>11</sup> would say, "It is worth a regiment of horse" to a young man setting out in the world with little other capital than a pair of willing hands and an honest and hopeful heart.—[From Elihu Burritt's *Walk from London to Land's End* (Sampson, Low, and Marston)].

<sup>1</sup> **Ad infinitum.**—To infinity, without limit.

<sup>2</sup> **Belles.**—Beauties.

<sup>3</sup> **Friend.**—A Quaker, a member of the Society of Friends.

<sup>4</sup> **Inventive . . . energy.**—A mind to *invent*, or adapt means to ends; and an energy to *execute*, or carry out, an action.

<sup>5</sup> **Eclectic.**—Picking out what was suitable from different quarters.

<sup>6</sup> **Elaboration.**—The working out.

<sup>7</sup> **Vade mecum.**—Literally, *go with me*: travelling companion.

<sup>8</sup> **Cupid.**—The god of love, represented as a boy with a bow and arrow.

<sup>9</sup> **Allegorical emblems.**—Things re-

representing ideas and feelings : e.g., Cupid  
represents love.

<sup>10</sup> **Unswerving probity.** — Steady  
honesty.

<sup>11</sup> **Corporal Trim.** — A delightful

character in Sterne's *Tristram Shandy*.

He is *Uncle Toby's* servant and friend, as  
all know who have read the well-known  
story of *Le Fevre*.

## THE FOUNTAIN ; A CONVERSATION.

WE talked with open heart and tongue,  
Affectionate and true,  
A pair of friends, though I was young,  
And Matthew seventy-two.

We lay beneath a spreading oak,  
Beside a mossy seat ;  
And from the turf a fountain broke,  
And gurgled at our feet.

" Now, Matthew ! " said I, " let us match  
This water's pleasant tune  
With some old border-song, or catch,  
That suits a summer's noon ;

" Or of the church-clock and the chimes  
Sing here beneath the shade,—  
That half-mad thing of witty rhymes  
Which you last April made ! "

In silence Matthew lay, and eyed  
The spring beneath the tree ;  
And thus the dear old man replied,—  
The grey-haired man of glee :

" No check, no stay, this streamlet fears ;  
How merrily it goes !  
'Twill murmur on a thousand years,  
And flow as now it flows !

" And here, on this delightful day,  
I cannot choose but think  
How oft, a vigorous man, I lay  
Beside this fountain's brink.

## THE HOLBORN SERIES.

" My eyes are dim with childish tears,  
My heart is idly stirred,  
For the same sound is in my ears  
Which in those days I heard.

" Thus fares it still in our decay :  
And yet the wiser mind  
Mourns less for what age takes away  
Than what it leaves behind.

" The blackbird amid leafy trees,  
The lark above the hill,  
Let loose their carols when they please,  
Are quiet when they will.

" With Nature never do *they* wage  
A foolish strife ; they see  
A happy youth, and their old age  
Is beautiful and free.

" But we are pressed by heavy laws ;  
And often, glad no more,  
We wear a face of joy, because  
We have been glad of yore.

" If there be one who need bemoan  
His kindred laid in earth,  
The household hearts that were his own,  
It is the man of mirth.

" My days, my friend, are almost gone,  
My life has been approved,  
And many love me ; but by none  
Am I enough beloved."

" Now both himself and me he wrongs,  
The man who thus complains !  
I live and sing my idle songs  
Upon these happy plains.

" And, Matthew, for thy children dead  
I'll be a son to thee !"  
At this he grasped my hand, and said,  
"Alas ! that cannot be."

We rose up from the fountain-side ;  
And down the smooth descent  
Of the green sheep-track did we glide,  
And through the wood we went.

And, ere we came to Leonard's rock,  
He sang those witty rhymes  
About the crazy old church-clock,  
And the bewildered chimes.

WORDSWORTH.

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## TWO SCENES FROM THE CIVIL WAR.

IN the course of the Civil War, in the reign of Charles I., fortune often changed sides. The following narrative affords an illustration of the vicissitudes of fortune, and of the duty and advantage of moderation in the hour of triumph.

### FIRST SCENE.

It was two hours past midnight, and yet the inhabitants of a small lonely dwelling on the edge of a large piece of common-ground, lying about ten miles from Farringdon House, were all awake, and up, and with anxious eyes gazing from the small long windows into the darkness that hung over the world. Every now and then bright red flashes, sudden and sharp, broke upon the night, followed by a distant report as quick and transitory. No one spoke in that lone house while the flashes continued. At length the sudden bursts of light entirely ceased ; the reports were no longer heard ; and then the mother, turning to her daughter, said in a low voice, " It is over ; God's will is wrought by this time."

The daughter said nothing ; but clasping her fair hands together, raised her eyes towards the dark heavens, while her full sweet lips moved silently, offering up a petition to that never-closed ear which hears the still voice of the heart's thoughts as plainly as the loudest-tongued appeal.

In a moment after, the clattering sound of horses' feet was heard coming quickly down the road. At first it was faint and distant—the dull tramp of several fleet steeds galloping over moist ground; but soon it came nearer and nearer—left the turf of the common, clanged over the firm and stony road, came close to the house, passed it—and died away in the distance.

"They are the rebels! they are the rebels fleeing for life!" exclaimed the daughter in a glad tone, as they darted past the house; "I see their great boots, and their morions without crest or plume!"

"But they may be pursuing those who went before," said her mother.

"No, no! they are fleeing, in good sooth!" replied the young lady, "for ever and anon they turn their heads to look behind, and still urge their horses faster at each look. And now, pray God that victory may not cost us dear. I would that my brother were come back, and Henry Lisle."

"Fie, Margaret, fie!" said her mother; "give God undivided thanks; for if my son and your lover be both left upon the field of battle, we ought still to feel that their lives were well bestowed to win a victory for their royal master."

In a moment after a single horseman approached, and just as he came opposite the door his horse stumbled, throwing him with fearful violence on his head upon the ground. A deep groan was at first the only sound; but the moment after the horse, by a long wild neigh, seemed at once to express its sorrow and to claim assistance.

The fallen man was brought by the orders of Lady Herrick into the house, and means were taken for his recovery. The moment that consciousness returned he made an ineffectual effort to start upon his feet, saying, "The Lord hath smitten me, yet must I gird up my loins and go, lest I fall into captivity."

"Stay till you can ride," replied Lady Herrick. "You are in safety here; for though I regard a Roundhead as an

enemy, I will not permit any to lay hands on one that common mercy bade me take in and shelter: fear not, I say. That is right, Margaret," she added, seeing her daughter pour some wine into a glass for the use of the stranger; "take that: it will revive you, and give you strength to speed on."

A few seconds more, and both her son and Henry Lisle had entered the room. At the sight of the rebel in his mother's house, Sir George Herrick's blood kindled with rage, and neither the prayers of his mother or sister, nor the promise they had made to the stranger, had any effect. "Bring a rope, I say, that I may hang this Roundhead cur to the oak before the door."

"This must not be, George," said Henry Lisle, laying his hand upon his companion's shoulder.

"Must not be! But it shall be. Who shall stay me?"

"Your own better reason and honour, I trust," replied the other. "Will you slay a man by your own hearth who put confidence in your mother's word?"

Sir George glared round for a moment in moody silence, and then put up his sword. "Well," said he at length, "if he stayed but on ~~her~~ promise, let him take himself away. He will grace the gibbet some other day."

That man was afterwards "Lord Protector of the Commonwealth of England!" Henry Lisle had indeed recognised in the fugitive the famous Oliver Cromwell.

"Dost thou know me?" said the warrior, as he mounted his horse; "then thou doest the better deed in Israel!"

## SECOND SCENE.

Time flew: the temporary success obtained by General Goring over the forces of Oliver Cromwell was swept away and forgotten in a tide of brilliant triumphs won by the Parliamentary general, who trod upon steps of victory to the government of an empire.



In the meanwhile Sir George Herrick and Henry Lisle had fought to the last in the cause of their king; and their zeal—like that noblest of human energies, hope—had grown but the stronger under the pressure of misfortune and distress. Amongst the various chances of the civil war, five times had the day been appointed for the union of Henry Lisle with Margaret Herrick, and five times had some unforeseen mishap intervened to delay what all so much desired.

The last time the marriage was suspended was on the fatal call to Worcester field, where Sir George Herrick fell; and Henry Lisle only escaped to bear his companion's last request to Margaret—that without further pause or delay, without vain ceremonies or useless tears, she would give herself at once to her promised protector. Their wedding was a sad one—no glad peal, no laughing train, announced the union of the two lovers; and ere the day of their bridal was spent, Henry Lisle was a prisoner, journeying towards the Tower of London.

His trial was delayed some time; but when it took place it was soon decided. No evidence was wanting to his full conviction of loyalty to the king; and the block and axe was the doom pronounced upon him. A brief three days lay between him and death.

\* \* \* \* \*

It was in Westminster Hall on the 16th day of December, 1653, that with the clangour of trumpets and all the pomp and splendour both of military and civil state, a splendid procession moved forward to a chair or throne raised on some ornamented steps at the further extremity of the building. Judges in those solemn robes intended to give dignity to the judgments they pronounce, and officers dressed in all that glittering panoply destined to deck and hide the rugged form of war, moved over the echoing pavement between two long ranks of soldiers, who kept the space clear from the gazing and admiring multitude. But

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the principal figure of the whole procession, on which all eyes were turned, was that of a stout, broad-built man, with a dingy weather-beaten countenance, shaggy eyebrows, and a large red nose. His countenance was as unprepossessing as can be conceived ; nor was his dress, which consisted of black velvet, at all equal to those which surrounded him. But there was something in his glance and carriage that spoke of the consciousness and confidence of power. Passing onward through the hall, he ascended the steps to the chair of state, and, turning round, stood uncovered before the people. The two keepers of the great seal, standing on his right and left, read a long paper called the *Institute of Government*, by which, among other things, Oliver Cromwell was named "Lord Protector of the Commonwealth of England." The paper was then signed, an oath was administered, and, putting on his hat, the Lord Protector sat down amidst the acclamations of the people, whilst the rest continued to stand around uncovered.

Various other ceremonies were performed ; and then the new ruler, rising from his seat, led back the procession towards the door of the hall ; but scarcely had he traversed one half of its extent, when a woman, who had been whispering to one of the soldiers that lined the way, pushed suddenly past and cast herself at Cromwell's feet. "An act of grace, Lord Protector, to bring a blessing on the power you have assumed."

"What wouldest thou, woman?" demanded Cromwell ; "somewhere I have seen thy face before : what wouldest thou?"

"When Colonel Cromwell failed in his attack on Farringdon House," said Lady Herrick—for it was she who knelt before him,—“and when General Goring surprised and cut to pieces his troops at night near Warnham Common,” (Cromwell's brow darkened, but still she went on,) “he fled from a disaster he could not prevent, and was cast from his horse, stunned, at the door of a widow woman, who gave

him shelter. Henry Lisle, who interposed to save your life that night, is now under sentence of death. I now ask the life of Henry Lisle in return for the life he saved."

Cromwell's brow was dark as thunder; and after gazing on her for a moment in silence, his only reply was, "Take her away; the woman is mad."

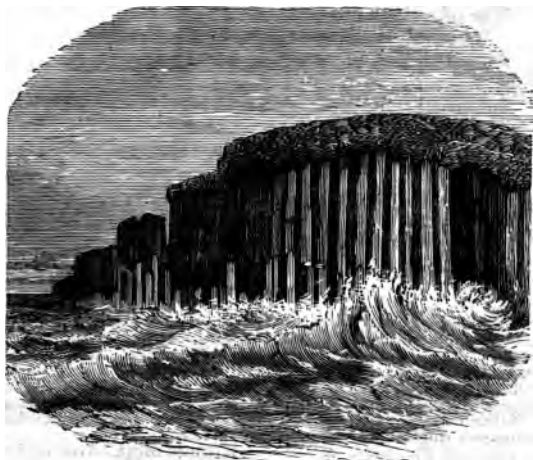
Put out of the hall by the soldiers, her last hope gone, her heart nearly broken for her child and her child's husband, Lady Herrick wandered slowly on towards that sad place where she had left all that was dear to her. Before she had threaded many of the solitary streets, robbed of their population by the attractive ceremony of the day, a single trooper galloped up, gazed on her a moment, and rode on. At the Tower no formalities were opposed to her immediate entrance of the prisoner's chamber—she was led to it at once; the door itself was open; an unsealed paper lay upon the table. Henry held Margaret in his arms; and tears, which she never before had seen in his eyes, now rolled plentifully down his cheeks, and mingled with those of his bride; but, strange to say, smiles were shining through those tears, and happiness, like the rainbow-sun, beamed through the drops of sorrow.

"Joy, mother, joy!" were the first and only words: "joy, mother, joy! Henry is pardoned!"—[Abridged from the narrative of the well-known novelist, G. P. Rainsford James.]

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### THE SANDAL-TREE.

THE best revenge is love:—disarm  
Anger with smiles; heal wounds with balm;  
Give water to thy thirsting foe:  
The sandal-tree, as if to prove  
How sweet to conquer hate by love,  
Perfumes the axe that lays it low.



### STAFFA AND IONA.

[STAFFA AND IONA are two small islands on the west of Scotland. Iona is interesting to us as being the first place in Scotland where Christianity was introduced ; and Staffa is equally interesting for the curious natural excavation known as Fingal's Cave.]

MERRILY, merrily, goes the bark  
On a breeze from the northward free ;  
So shoots through the morning sky the lark,  
Or the swan through the summer sea.  
The shores of Mull on the eastward lay,  
And Ulva dark and Colonsay,  
And all the group of islets gay  
That guard famed Staffa round.  
There all unknown its columns rose,  
Where dark and undisturbed repose  
The cormorant had found,  
And the shy seal had quiet home,  
And weltered <sup>1</sup> in that wondrous dome,  
Where, as to shame <sup>2</sup> the temples decked  
By skill of earthly architect,  
Nature herself, it seemed, would raise  
A minster <sup>3</sup> to her Maker's praise !

Not for a meaner use ascend  
 Her columns, or her arches bend;  
 Nor of a theme <sup>1</sup> less solemn tells,  
 That mighty surge that ebbs and swells,  
 And still, between each awful pause,  
 From the high vault an answer draws,  
 In varied tone prolonged and high,  
 That mocks the organ's melody.  
 Nor doth its entrance front in vain  
 To old Iona's <sup>2</sup> holy fane,  
 That Nature's voice might seem to say  
 "Well hast thou done, frail child of clay!  
 Thy humble powers that stately shrine <sup>3</sup>  
 Tasked high and hard—but witness <sup>4</sup> mine!"

SIR WALTER SCOTT.

<sup>1</sup> *Weltered, etc.*—Rolled about in the waves of the cave under its dome or arched roof.

<sup>2</sup> *As to shame.*—As if to shame.

<sup>3</sup> *A minster.*—A cathedral. A look at the picture will show what the poet meant by Nature raising a minster.

<sup>4</sup> *A theme.*—A subject; and the subject here meant is the praise of the Creator.

<sup>5</sup> *Iona's holy fane.*—A church was built on Iona by Columba, the first great

missionary to Scotland; and here was afterwards erected a cathedral, whose ruins still remain. This is the "holy fane" spoken of.

<sup>6</sup> *That stately shrine.*—A "shrine" is a case in which something sacred is deposited; here it is applied to the cathedral on Iona.

<sup>7</sup> *Witness mine.*—Look at the cathedral which I (Nature) have erected, and see how much grander is mine than yours.

## PETER THE GREAT.

RUSSIA, at the present day, is the largest and one of the most powerful empires of the globe. The founder of its greatness was Peter the Great, who ascended the throne in 1682, when a boy of ten years. At the age of seventeen he took the reins of government into his own hands, and soon showed his resolution to effect a thorough reform in the manners of his subjects, and to raise his country to a high place among the nations of Europe.

When Peter began to reign, Russia was but a poor, half-civilized country, without manufactures, without a navy, and with only Archangel for a seaport. As the first step in working out his plans, Peter began to form an army, drilled and

accounted like the best regiments of Europe. The Czar, as the emperor of Russia is called, being determined to learn the military art thoroughly, entered his first regiment as a drummer, and gained promotion from one step to another as he became proficient. Meanwhile he studied the art of shipbuilding, and began to construct a navy.

Having spent seven years in laying the foundation of his country's future greatness, he resolved on visiting foreign countries, to gain the knowledge indispensable for carrying on the work he had begun. In the same spirit that he had entered the army as a drummer, he engaged himself as a journeyman to a shipbuilder at Saardam, in Holland; and there he might have been seen in red woollen shirt and duck trousers, plying his adze as a ship-carpenter. For seven weeks he lived in a little shingle cottage, rose early, made his bed, and cooked his breakfast. He passed nine months in Holland, and during that time mastered the Dutch language, acquired a clear insight into the construction of a ship, and examined carefully all the factories and institutions of Amsterdam.

From Holland he passed over to England, where he was received with great honour by William III. Peter's main object was to examine our dockyards, and for that purpose he occupied a house at Deptford. He spent most of the day, when not in the dockyard, in sailing or rowing on the Thames; he became as expert in managing vessels as an able seaman, and quite as fond as a sailor, when the day's work was over, of retiring to a tavern for grog and tobacco. On taking his leave of King William, Peter presented him with a ruby worth £10,000, which he drew from his waistcoat pocket, wrapped up in a bit of dirty brown paper.

On the Czar's return home he began in good earnest his social reforms: he caused the Bible to be translated into the Russian tongue; set up printing presses; founded hospitals and almshouses; erected linen and paper factories; intro-

duced flocks of Saxony sheep ; greatly improved the art of shipbuilding ; and encouraged skilful mechanics, of all nations and trades, to settle in his empire.

He next proceeded to enlarge the boundaries of Russia, which at that time was so hemmed in by neighbouring states, that it had no access to the great ocean highway for its commerce except through Archangel, whose port, the greater part of the year, was blocked up with ice. The shores of the Black Sea were in the hands of the Turks, and the provinces around the Gulf of Finland and the Baltic Sea belonged to the Swedes. Peter resolved on war as a means of extending his sea-board. Having gained a footing on the Black Sea in a successful war with the Turks, Peter turned his arms against the Swedes (A.D. 1700), whose king at that time was a famous warrior, named Charles XII. The Russians, at first, were no match for their foes under such a leader. When the Czar was informed of the first great defeat of his army, he replied, "I know very well that the Swedes will have the advantage over us for some time ; but they will teach us at length to beat them."

In less than two years Peter was able to say, "We have at last beaten the Swedes when two to one against them ; we shall by-and-by be able to face them man to man." One result of his victory was the building of the fortress of St. Petersburg on an island near the mouth of the Neva. And on an island still lower down the river he founded the impregnable fortress of Cronstadt, which commands its entrance.

The capital of Russia at this time was Moscow, situated in the centre of the country. Peter was resolved to found a new capital near the sea ; and he selected, as its site, the swampy country around the citadel of St. Petersburg. In the course of a twelvemonth the city of St. Petersburg arose as if by magic. Thousands perished from toil, privation, and the pestilential air of the marshes, but the work of draining *and building* went steadily forward. Under the marvellous

energies of the founder, St. Petersburg soon became a fine city, and a place of great commercial importance.

Meanwhile the contest continued between the two rival monarchs for supremacy in the north of Europe. "Nowhere," said Charles, as he entered Russia with his veteran troops, "will I treat with Peter but at Moscow." On this Peter remarked, "My brother Charles wishes to act the part of Alexander,<sup>1</sup> but he shall not find a Darius in me." The Czar, with his army, retreated slowly before the advancing enemy, thus drawing them on step by step into the heart of a barren country, where they were overtaken by the snows of winter. After the loss of thousands of his men from cold, hunger, and disease, the King entered the Ukraine,<sup>2</sup> and with 20,000 frost-bitten, ill-clad, ill-fed soldiers, besieged the small but strongly-fortified town of Pultowa.<sup>3</sup>

The day was now fast approaching when the two rivals were, for the first and last time, to measure their strength, and to fight a great decisive battle. Peter appeared before Pultowa with an army of 60,000 men (A.D. 1709). The two monarchs commanded in person. Charles, who had been previously wounded in the foot, was carried on a litter from rank to rank. The litter was shattered in pieces by a cannon ball, but the King was not struck. Peter narrowly escaped, his hat being shot through. After incessant fighting for two hours victory declared in favour of the Russians. The Swedes never recovered from the effects of the blow. Their power rapidly declined, whilst that of the Russians steadily grew.

In 1716 Peter made a second tour of Europe. On his arrival at Paris he declined to take up his abode at the Louvre, preferring to stay at a small hotel, where he could live in his own simple, frugal way. "I am a soldier," he said; "a little bread and beer satisfy me. I prefer few friends to many, and small rooms to large ones."

Peter spent the remaining years of his life in useful reforms and patriotic labours. In 1724 the Czar celebrated



by a naval review the creation of the Russian fleet, which then comprised forty-one ships, manned by 15,000 seamen. The little skiff in which he had paddled when a boy was exhibited on the occasion, under the name of the *Little Grandsire*, as the ancestor of the Russian fleet.

The character of Peter may best be given in the words of Voltaire :<sup>4</sup> "He gave a polish to his people, and was himself a savage ; he taught them the art of war, of which he was himself ignorant ; from the sight of a little boat on the river Moskwa he created a powerful fleet ; he made himself an expert and active shipwright, sailor, pilot, and captain ; he improved the manners, customs, and laws of the Russians, and justly lives in their memory as the 'Father of his country.'"

The great Czar died of fever in 1725, caught by wading knee-deep in Lake Ladoga, to aid in getting off a boat which had struck upon a rock. He was succeeded by his worthy consort Catharine.

<sup>1</sup> **Alexander.** — King of Macedonia, surnamed the "Great" from his wonderful conquests in Asia and Africa. His chief victories were gained in his war with the Persians. Their king, DARIUS, was hopelessly defeated at Arbela (B.C. 331). In the same year Alexander founded at the mouth of the Nile the city of Alexandria.

<sup>2</sup> **Ukraine.** — A province in Central Russia.

<sup>3</sup> **Pultowa** or *Pultava*. — On a tributary of the Dneiper, in the south of Russia.

<sup>4</sup> **Voltaire.** — A celebrated French writer, born 1694, died 1778. Among his historical works are the "Age of Louis XIV.," "History of Charles XII.," and "History of Russia."

## CATHARINE OF RUSSIA.

CATHARINE, the celebrated wife of Peter the Great, was born of poor parents, heir to no other inheritance than their virtues and frugality. Her father being dead, she lived with her aged mother in their cottage, covered with straw ; and both, though very poor, were very contented. Here, retired from the gaze of the world, by the labour of her hands she supported her mother, who was now incapable of supporting herself. When Catherine spun, her mother would sit by and read some book of devotion,

Catharine was only fifteen when her mother died : she was then just budding into womanhood ; in face and person of rare beauty, and in understanding strong and ready. She now therefore left her cottage, and went to live with a Lutheran minister, by whom she had been instructed from her childhood. In his house she resided in quality of governess to his children ; at the same time she continued to take lessons from her old instructor. Thus she continued to improve under his roof till his death, when she became homeless and friendless. Livonia, the province to which she belonged, was at this time wasted by war. Provisions becoming every day scarcer, and her private stock being nearly exhausted, she resolved to travel to Marienburg, where some of her relatives lived.

With her scanty wardrobe packed up in a wallet, she set out on her journey on foot. She had to walk through a region miserable by nature, but rendered still more hideous by the Swedes and Russians, who, as each happened to become masters, plundered it at discretion ; but hunger had taught her to despise the dangers and fatigues of the way.

On her journey she was insulted by two Swedish soldiers, but she providentially found an unexpected deliverer in the son of her old friend and tutor. Great was their surprise on recognizing each other. This was a happy meeting for Catharine : the little stock of money she had brought from home was by this time quite exhausted ; her clothes were gone to satisfy those who had entertained her in their houses. Her generous countryman, therefore, parted with what he could spare to buy her clothes, furnished her with a horse, and gave her letters of recommendation to Mr. Gluck, a faithful friend of his father's, and governor of Marienburg.

Our beautiful stranger had only to appear, to be well received ; she was immediately admitted into the governor's family, as governess to his two daughters ; and though only seventeen, showed herself capable of instructing her sex, not only in virtue, but politeness. Such was her good sense and

beauty, that her master himself in a short time offered her his hand, which to his great surprise she thought proper to refuse. It seems she was resolved to marry her deliverer only, even though he had lost an arm, and was otherwise disfigured by wounds in the service of his country. And shortly afterwards their nuptials were celebrated.

But all the lines of her fortune were to be striking: the very day on which they were married, the Russians laid siege to Marienburg, and the newly-wedded pair had to part. The bride never again saw her husband alive: he was killed in the first attack on the city.

In the meantime, the siege went on with fury—aggravated on one side by obstinacy, on the other by revenge. The war between the two Northern powers at that time (A.D. 1700) was truly barbarous; the innocent peasant and the harmless maiden often shared the fate of the soldier in arms. Marienburg was taken by assault; and such was the fury of the assailants that not only the garrison, but almost all the inhabitants, men, women, and children, were put to the sword; at length, when the carnage was pretty well over, Catharine was found hid in an oven.

The fame of the loveliness of the captive maid came to the ears of Prince Menzikoff, who bought her from the soldier, her master, and placed her under the direction of his own sister. She had not been long in this situation, when Peter the Great, paying the prince a visit, was struck with the grace and modesty of the beautiful slave that was handing round fruits and wines to her master's guests. On the following day the mighty monarch sent for Catharine, and, on conversing with her, found her intelligence and understanding equal to her beauty. In a short time the poor stranger, captive, and slave was made a partner of the throne of Russia.

She ever after retained those virtues and great qualities which first placed her on a throne; and at length, when she had greatly filled all the stations of empress, friend, wife, and mother—bravely died without regret, regretted by all.

### THE CRIMEAN WAR.

AFTER a peace of nearly forty years England became again involved in a European war (A.D. 1854). It arose from the ambition of the Russian Emperor to extend his dominions by encroaching upon Turkey, with the view ultimately of annexing the whole country. To prevent Russia from becoming so powerful as to endanger the liberty of other European states, England and France, and afterwards Sardinia,<sup>1</sup> joined Turkey in making war against her.

The chief interest of the war centred in Sebastopol, a strongly fortified town in the Crimea,<sup>2</sup> and the chief naval arsenal of the Russian Empire. With the design of moving on to the attack of Sebastopol, the allies landed at Eupatoria<sup>3</sup> Bay. Between them and the town flowed the river Alma, and on the rugged heights beyond the river was posted the Russian army. Here was fought the first pitched battle of the campaign. The English were commanded by Lord Raglan, the French by Marshal St. Arnaud, and the Russians by Prince Menschikoff. According to the concerted plan of attack, the French were the first to advance and establish themselves on the cliffs beyond the river. In this they were completely successful. When the British, in their turn, went forward, the Russian batteries on the opposite slope opened upon them with a destructive fire. But our gallant soldiers pressed on like a resistless torrent, through vineyards, over barricades of felled trees, across the river, and up the steep ascent beyond. The redoubt from which they had been cannonaded was stormed, taken, and retaken. The tug of war was about equal, when the Highland Brigade under Sir Colin Campbell<sup>4</sup> arrived, and in co-operation with the Guards decided the day in our favour. Two guns placed by Lord Raglan on a commanding eminence completed the Russian defeat. The enemy retired, however, in good order towards Sebastopol.

The allied armies, after a rest of two or three days, resumed their march, and finally took up their position between Sebastopol and Balaklava. The latter was a village with a small harbour, of the greatest consequence to our army, as through it all supplies from home must come. The safety of this place was committed to Sir Colin Campbell and his 93rd Highlanders. The main body was soon engaged in constructing batteries for cannonading the fortresses of Sebastopol, whilst the allied fleets took up a position for pouring in shot and shell on the side facing the sea. On the morning of the 17th of October the bombardment began. But the Russian defences were so admirable, and their artillery so well handled, that when sunset came, it was found that eight ships of the line, two English and six French, had been so sadly mauled that it became necessary to send them home for repairs; on the other hand, not a single breach had been made in the Russian walls, although in many places they were dented as thickly with cannon-balls as if a hailstorm had beaten against them, and each hailstone had left a mark behind.

The Russians, growing bold with success, in less than a week made a sudden attack on our position at Balaklava. The Russian cavalry came sweeping on at a rapid pace towards the village, in front of which the Highlanders were drawn up in a double line to receive them. It looked as if that coming charge of cavalry, now rushing on like a hurricane, must snap asunder that thin red line like a thread. But before the enemy had come within 250 yards, a deadly volley from the Highland rifles brought the whole squadron to a sudden pause, and in another moment they hurriedly faced about in the direction of their friends. Shortly afterwards our Heavy Brigade, of Scots Greys, Inniskillings, and Dragoon Guards, rode like a whirlwind through a mass of Russian cavalry thrice their number. This was a day of heroic deeds. But the most brilliant feat of all was the charge of the Light Brigade, consisting of only 600 horse-

men. As the Russians were retiring with some guns taken from the Turks in the morning, this gallant corps made a splendid dash at them. For about a mile they rode at full gallop under the fire of thirty cannon and thousands of musketry. They went clean through a body of infantry drawn up to bar the way, reached the guns on the other side, and sabred the gunners. They then rode back through the same storm of musket-shot and cannon-ball, "but not—not the six hundred:" only one man in three survived that day.

On Sunday, the 5th of November, 1854, was fought the battle of Inkermann, generally called the "soldiers' battle," because it was a trial of strength and courage between the *soldiers* in the two armies, with scarcely any plan on the part of the *generals*. Under cover of the night and a fog, the Russians had crept silently up to the extreme right of the British position, overlooking the valley of Inkermann, and had planted their guns in commanding positions, when our picket, with the first faint dawn of light, saw with astonishment masses of Russian troops pressing on towards the British lines. An earth-work called the *Two-gun battery* formed the focus of the fight. For three hours the Grenadier Guards and Fusiliers maintained their position, as the French general said, with "invincible solidity." When their ammunition was exhausted, they used the butt-end of the musket and the point of the bayonet. Having to contend against five or six times their number, the British would have been overpowered, but for the timely arrival of 6,000 French. Side by side the English and French soldiers fought, each trying to excel the other in deeds of valour, against a foe three or four times as numerous as themselves combined. Over the whole field the Russian columns were at last in full retreat, like waves that had spent their force in vain upon a rock, leaving behind them a wreck of the dead and dying amounting to 4,000.

And now commenced a woeful time for the British army, ill provided with food, clothing, and shelter for resisting the

rigours of a Crimean winter. On the 14th of November a furious storm swept over Balaklava, and wrecked the vessels in the harbour, with their cargoes of warm clothing and provisions. The soldiers' tents were levelled like grass before the scythe; and even the wooden houses, that had been set up for hospitals, were in some cases borne away on the hurricane, leaving the sick and wounded exposed to the inclemency of the sky. The rain and snow that descended soon converted the entire camp into a sea of mud, and the road from Balaklava to the camp into a canal of deep mire. Our victorious army was soon reduced by sickness and death to a few thousand ragged, half-fed, over-wrought soldiers, exhausted by work in the trenches during the day, and the necessity of keeping watch as sentinels by night.

The intelligence of their miserable plight went to the heart of the nation at home. More than a million pounds were subscribed to the "Patriotic Fund." Many busy hands, moved by kind hearts, made up huge bundles of blankets, and woollen things in all possible forms, whilst others packed up hams and cured meats of all kinds; and these supplies were then forwarded in all haste to the seat of war. The sympathy of the nation evinced itself in a still nobler form. Thousands of diseased, mangled, and mutilated soldiers overcrowded the hospitals at Scutari<sup>5</sup> and elsewhere, and were dying for want of careful nursing. A noble band of women, with Florence Nightingale at their head, went out to brave the horrid spectacle of a soldiers' hospital, and to minister with tenderness and devotedness to the pitiable sufferings of the sick and wounded. Miss Nightingale and her thirty-seven nurses arrived at Scutari just before the wounded were brought in from the battle of Inkermann. The presence of these ladies was like a spell, under which pain was abated, murmurs hushed, and the glazed eye kindled with new comfort and hope. Miss Stanley, with fifty new nurses, soon afterwards went out to aid in the good work. Of all the glories of the war we

must reckon this, that these women have done, as the chief.

Before the opening of the campaign of 1855 the management of the war at home had fallen into the hands of Lord Palmerston, as Premier. The death of the Czar Nicholas, in March, led many to hope that peace was at hand. But still the war went on. Lord Raglan died in June, and still Sebastopol stood as defiant as ever. The two most formidable fortresses were the Malakoff and the Redan. On the 8th of September, 1855, an assault was made on them by the French and the English. A brilliant and resistless rush left our allies masters of the Malakoff. When their tri-coloured flag was seen on its *White Tower* a storming party of 1,000 men left the British trenches and scaled the Redan. After maintaining their ground for a considerable time, they were dislodged and driven out. However, the capture of the Malakoff sealed the fate of Sebastopol. During the night the Russians evacuated the town they had so stubbornly defended, leaving behind them a heap of ruins and a city in flames. The war was now virtually over. A treaty of peace was concluded in March, 1856, by which Russia pledged herself to abstain from all interference with Turkey. —[Dawe and Lawson's *History of England*, published in the Holborn Series.]

<sup>1</sup> **Sardinia.**—At that time a separate kingdom in the north of Italy. Since then the king of Sardinia has become the king of Italy.

<sup>2</sup> **Crimea.**—A peninsula in the south of Russia, between the sea of Azov and the Black Sea.

<sup>3</sup> **Eupatoria Bay.**—In the Crimea.

<sup>4</sup> **Sir Colin Campbell.**—Afterwards

appointed to the chief command in India, during the Sepoy Mutiny: he received the title of Lord Clyde in acknowledgment of his services.

<sup>5</sup> **Scutari.**—In Asia Minor, just opposite Constantinople. There is another Scutari in Albania—a province in the west of Turkey.

## AUTUMN.

THAT time of year thou may'st in me behold,  
When yellow leaves, or none, or few, do hang  
Upon those boughs which shake against the cold;  
Bare ruin'd choirs, where late the sweet birds sang.



In me thou seest the twilight of such day  
 As after sunset fadeth in the west,  
 Which by-and-by black night doth take away,—  
 Death's second self, that seals up all the rest.  
 In me thou seest the glowing of such fire  
 That on the ashes of his youth doth lie,  
 As the deathbed whereon it must expire :  
 Consumed<sup>1</sup> with that which it was nourish'd by.  
 This thou perceiv'st, which makes thy love more strong,  
 To love that well which thou must leave ere long.  
 SHAKSPEARE.

SEASON of mists and mellow fruitfulness !  
 Close bosom-friend of the maturing sun ;  
 Conspiring with him how to bless  
 With fruit the vines that round the thatch-eaves run ;  
 To bend with apples the moss'd cottage-trees,  
 And fill all fruit with ripeness to the core ;  
 To swell the gourd, and plump the hazel shells  
 With a sweet kernel ; to set budding more,  
 And still more, later flowers for the bees,—  
 Until they think warm days will never cease,  
 For summer has o'er-brimmed their clammy cells.

Who hath not seen thee oft amid thy store ?  
 Sometimes whoever seeks abroad may find<sup>2</sup>  
 Thee sitting careless on a granary floor,  
 Thy hair soft lifted by the winnowing wind ;  
 Or on a half-reap'd furrow sound asleep,  
 Drowsed with the fume of poppies ; while thy hook  
 Spares the next swathe and all its twinèd flowers.  
 And sometimes like a gleaner thou dost keep  
 Steady thy laden head across a brook ;  
 Or by a cider-press, with patient look,  
 Thou watchest the last oozings, hours by hours.

Where are the songs of Spring ? Ay, where are they ?  
 Think not of them ; thou hast thy music, too,  
 While barrèd clouds bloom the soft-dying day,  
 And touch the stubble-plains with rosy hue ;  
 Then in a wailful choir the small gnats mourn  
 Among the river salallows,<sup>3</sup> borne aloft,  
 Or sinking as the light wind lives or dies ;  
 And full-grown lambs loud bleat from hilly bourn ;<sup>3</sup>  
 Hedge-cricket sing ; and now with treble soft  
 The red-breast whistles from a garden croft,<sup>4</sup>  
 And gathering swallows twitter in the skies.

KEATS.

THE warm sun is failing, the bleak wind is wailing,  
 The bare boughs are sighing, the pale flowers are dying,  
     And the year  
 On the earth her death-bed, in a shroud of leaves dead,  
     Is lying.  
 Come, months, come away,  
 From November to May,  
 In your saddest array ;  
 Follow the bier  
 Of the dead cold year,  
 And like dim shadows watch by her sepulchre.

The chill rain is falling, the night-worm is crawling,  
 The rivers are swelling, the thunder is knelling  
     For the year ;  
 The blithe swallows are flown, and the lizards—each gone  
     To his dwelling ;  
 Come, months, come away,  
 Put on white, black, and grey,  
 Let your light sisters play—  
 Ye follow the bier  
 Of the dead cold year,  
 And make her grave green with tear on tear.

SHELLEY.

<sup>1</sup> **Consumed, etc.**—Autumn is at last consumed by *Time*, the very thing it has lived upon.

<sup>2</sup> **Sallow.**—A tree, or low shrub of the willow kind.

<sup>3</sup> **Bourne.**—Limit, or boundary line. The hills form the limit of vision, or bound the view.

<sup>4</sup> **Croft.**—A small enclosed piece of arable or garden-ground adjoining a house.

## THE PORTEOUS RIOT.

CAPTAIN PORTEOUS, of the City Guard of Edinburgh, had been condemned to death for rashly ordering his soldiers to re upon the crowd that assaulted him with stones on the occasion of an execution, when the popular sympathy was in favour of the criminal who had been hanged. On the day when the unhappy Porteous was expected to suffer the sentence of the law, the place of execution, extensive as it is, was crowded almost to suffocation. The area of the grassmarket (as the open square is called) resembled a

huge dark lake or sea of human heads, in the centre of which arose the fatal tree, tall, black, and ominous, from which dangled the deadly halter. This ill-omened apparition was of great height, with a scaffold surrounding it, and a double ladder placed against it for the ascent of the unhappy criminal and the executioner. As this apparatus was always arranged before dawn, it seemed as if the gallows had grown out of the earth in the course of the night, like the production of some foul demon; and I well remember the fright with which the schoolboys, when I was one of their number, used to regard these ominous signs of deadly preparation.

#### CAUSE OF THE RIOT.

On the 8th September, 1736, the sun rose upon the gibbet, erected during the darkness of night, and ere long a densely-packed crowd gathered round it, with a stern and vindictive show of satisfaction on every countenance. Amid so numerous an assembly there was scarcely a word spoken, save in whispers. The thirst of vengeance was in some degree allayed by its supposed certainty; and even the populace, with deeper feeling than they are wont to entertain, suppressed all clamorous exultation, and prepared to enjoy the scene of retaliation in triumph, silent and decent, though stern and relentless. The compressed lips, the bent brow, the stern and flashing eye of nearly every one present, conveyed the expression of men come to glut their sight with triumphant revenge.

The usual hour for producing the criminal had been past for many minutes, yet the spectators observed no symptoms of his appearance. "Would they venture to defraud public justice?" was the question which men began anxiously to ask each other. The first answer was bold and positive—"They dare not." But further delay induced the spectators to apprehend the possibility of a reprieve. At length the silent expectation of the people became changed into that

deep and agitating murmur which is sent forth by the ocean before the tempest begins to howl. The crowded populace, as if their motions corresponded with the unsettled state of their minds, fluctuated to and fro without any visible cause of impulse, like the agitation of the waters called by sailors the ground-swell. The news which the magistrates had almost hesitated to communicate to them were at length announced, and spread among the spectators with a rapidity like lightning. A reprieve had arrived, intimating the pleasure of Queen Caroline (regent of the kingdom during the absence of George II. on the Continent), that the execution of the sentence of death pronounced against John Porteous, late Captain of the City Guard of Edinburgh, present prisoner in the Tolbooth of that city, be respited for six weeks.

The assembled spectators of almost all degrees, whose minds had been wound up to the pitch we have described, uttered a groan, or rather a roar of indignation and disappointed revenge, similar to that of a tiger from whom his meal has been snatched by his keeper when he was just about to devour it. This shout was succeeded by stifled mutterings, which each group maintained among themselves, and which were blended into one deep and hoarse murmur, which floated above the assembly. The crowd at length broke up in moody silence—all with dark discontent on their brows, and many with a stern resolution in their heart.

#### THE OUTBREAK.

The sun had not long set, when this secret resolution began to bear fruit. A body of rioters, who had meanwhile carefully drawn up their plans, proceeded to take possession of the gates of the city; for Edinburgh was at that time surrounded by a high wall, and the access was through gates, called in the Scottish dialect *ports*. By this means they cut off communication between the magistrates within the city and the military stationed without the walls. The

castle, indeed, was within the city, but it was easy from its situation to post a small body to intercept any messenger attempting to communicate with the garrison. The next object of the insurgents was to disarm the city guard, and to procure arms for themselves; for scarce any weapons but staves and bludgeons had been yet seen among them. This formidable insurrection had been so unexpected, that there was only the ordinary guard on duty. These were soon overpowered, and the guard-house ransacked for arms, which were distributed among the boldest of the rioters. They took the precaution of destroying the drums they found here, lest an alarm might be conveyed through them to the garrison of the Castle. Having now accomplished all the preliminary parts of their design, the conspirators raised a tremendous shout of "Porteous! Porteous! To the Tolbooth! to the Tolbooth!"

While their outposts continued vigilant, and suffered themselves neither from fear nor curiosity to neglect that part of the duty assigned to them, a select body of the rioters thundered at the door of the jail, and demanded instant admission. No one answered, for the outer keeper had prudently made his escape with the keys at the commencement of the riot, and was nowhere to be found. The door was instantly assailed with sledge-hammers, iron crows, and the coulter of ploughs, with which they prized, heaved, and battered for some time with little effect; for the door, besides being of double oak planks, clenched, both end-long and athwart, with broad-headed nails, was so hung and secured as to yield to no means of forcing, without the expenditure of much time. The rioters, however, were determined to gain admittance. Gang after gang relieved each other at the exercise—for, of course, only a few could work at once; but gang after gang retired, exhausted with their violent exertions, without making much progress in forcing the prison door.

At length a voice was heard to pronounce the words,

"Try it with fire." The rioters, with a unanimous shout, called for combustibles, and as all their wishes seemed to be instantly supplied, they were soon in possession of two or three empty tar-barrels. A huge red glaring bonfire speedily arose close to the door of the prison, sending up a tall column of smoke and flame against its antique turrets and strongly grated windows, and illuminating the ferocious and wild gestures of the rioters who surrounded the place, as well as the pale and anxious groups of those who, from windows in the vicinage, watched the progress of this alarming scene. The mob fed the fire with whatever they could find fit for the purpose. The flames roared and crackled among the heaps of nourishment piled on the fire, and a terrible shout soon announced that the door had kindled. The fire was suffered to decay; but long ere it was extinguished, the most forward of the rioters rushed, in their impatience, one after another, over its smouldering remains. Thick showers of sparkles rose high in the air, as man after man bounded over the glowing embers.

#### LYNCH-LAW.

Porteous, the unhappy object of this remarkable disturbance, had meanwhile sought means to escape. He rushed to the chimney and attempted to ascend it; but his progress was speedily stopped by an iron grating. A place of concealment so obvious to suspicion and scrutiny could not long screen him from detection, after the rioters had made their way to his apartment. He was dragged from his lurking-place, and more than one weapon was directed towards him, when one of the rioters, in female disguise, interfered in an authoritative tone. "Are ye mad?" he said, "or would ye execute an act of justice as if it were a crime and a cruelty? We will have him die where a murderer should die,—on the common gibbet. We will have him die where he spilled the blood of so many innocents."

A loud shout of applause followed the proposal, and the

cry "To the gallows with the murderer! To the Grass-market with him!" echoed on all hands.

"Let no man hurt him," continued the speaker; "and, meanwhile, let him make his peace with God, if he can; we will not kill both his soul and body."

The opinion of the spokesman suited the temper of those he addressed,—a temper rather stubborn than impetuous, sedate though ferocious, and desirous of colouring their revengeful action with a show of justice and moderation.

They had suffered the unfortunate Porteous to put on his night-gown and slippers, as he had thrown off his coat and shoes in order to facilitate his attempted escape up the chimney. In this garb he was now mounted on two of the rioters clasped together, so as to form what is called in Scotland "the king's cushion." The procession now moved forward with a slow and determined pace. It was enlightened with many blazing links and torches; for the actors of this work were so far from affecting any secrecy on the occasion, that they seemed even to court observation. Those who bore swords, muskets, and battle-axes marched on each side, as if forming a regular guard to the procession. The windows, as they went along, were filled with the inhabitants. Some of them muttered accents of encouragement; but in general they were so much appalled by a sight so strange and audacious, that they looked on with a sort of stupefied astonishment. No one offered, by act or word, the slightest interruption.

The rioters, on their part, continued to act with the same air of deliberate confidence and security which had marked all their proceedings. When the object of their resentment dropped one of his slippers, they stopped, sought for it, and replaced it upon his foot. As they descended towards the fatal spot, it was suggested that a rope should be kept in readiness. For this purpose the booth of a man who dealt in cordage was forced open, a coil of rope was selected to serve as a halter, and the dealer next morning found that a

guinea had been left on his counter in exchange ; so anxious were the perpetrators of this daring action to show that they meditated not the slightest wrong or infraction of the law, excepting so far as Porteous was himself concerned.

Leading, or carrying along with them, in this determined and regular manner, the object of their vengeance, they at length reached the place of common execution, the scene of his crime and destined spot of his sufferings. In a few minutes a loud shout proclaimed the stern delight with which the agents of this deed regarded its completion. Not the least remarkable feature of this singular affair was the sudden and total dispersion of the rioters as soon as their vindictive purpose was accomplished.—[Abridged from Sir Walter Scott's *Heart of Mid-Lothian*.]

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### MY MOTHER'S PICTURE.<sup>1</sup>

[WILLIAM COWPER (b. 1731, d. 1800). His poetry is lucid and simple, in some parts humorous, and in every line pure and refined. Of his longer poems the *Task* is the best known.]

O THAT those lips had language ! Life has pass'd  
 With me but roughly since I heard thee last.  
 Those lips are thine—thy own sweet smile I see,  
 The same that oft in childhood solac'd me ;  
 Voice only fails, else how distinct they say,  
 " Grieve not, my child, chase all thy fears away ;"  
 The meek intelligence of those dear eyes  
 (Bless'd be the art that can immortalise,  
 The art that baffles Time's tyrannic claim  
 To quench it) here shines on me still the same.

Faithful remembrancer of one so dear,  
 O welcome guest, though unexpected here !  
 Who bidd'st me honour with an artless song,  
 Affectionate, a mother lost so long.  
 I will obey, not willingly alone,  
 But gladly, as the precept were her own ;  
 And, while that face renews my filial grief,  
 Fancy shall weave a charm for my relief,  
 Shall steep me in Elysian<sup>2</sup> reverie,  
 A momentary dream that thou art she.



My mother ! when I learn'd that thou wast dead,  
Say, wast thou conscious of the tears I shed ?  
Hover'd thy spirit o'er thy sorrowing son,  
Wretch ' even then, life's journey just begun !  
Perhaps thou gav'st me, though unfelt, a kiss ?  
Perhaps a tear, if souls can weep in bliss—  
Ah, that maternal smile ! it answers—Yes.  
I heard the bell toll'd on thy burial day,  
I saw the hearse that bore thee slow away,  
And, turning from my nurs'ry window, drew  
A long, long sigh, and wept a last adieu :  
But was it such ?—It was.—Where thou art gone,  
Adieus and farewells are a sound unknown.  
May I but meet thee on that peaceful shore,  
The parting word shall pass my lips no more !  
Thy maidens, griev'd themselves at my concern,  
Oft gave me promise of thy quick return.  
What ardently I wish'd, I long believ'd,  
And, disappointed still, was still deceiv'd.  
By expectation every day beguil'd,  
Dupe of *to-morrow* even from a child.  
Thus many a sad to-morrow came and went,  
Till, all my stock of infant sorrow spent,  
I learn'd at last submission to my lot ;  
But, though I less deplor'd thee, ne'er forgot.  
Where once we dwelt, our name is heard no more.  
Children not thine have trod my nursery floor ;  
And where the gardener Robin, day by day,  
Drew me to school along the public way,  
Delighted with my bauble coach, and wrapp'd  
In scarlet mantle warm, and velvet capp'd,  
'Tis now become a history little known,  
That once we call'd the past'ral ' house our own.  
Short liv'd possession ! but the record fair,  
That memory keeps of all thy kindness there,  
Still outlives many a storm, that has effac'd  
A thousand other themes less deeply trac'd.  
Thy nightly visits to my chamber made,  
That thou might'st know me safe and warmly laid ;  
Thy morning bounties ere I left my home,  
The biscuit or confectionery plum ;  
The fragrant waters on my cheeks bestow'd  
By thy own hand, till fresh they shone and glow'd ;  
All this, and more endearing still than all,  
Thy constant flow of love, that knew no fall,

Ne'er roughen'd by those cataracts and breaks,  
That humour<sup>s</sup> interpos'd too often makes ;  
All this still legible in memory's page,  
And still to be so to my latest age,  
Adds joy to duty, makes me glad to pay  
Such honours to thee as my numbers<sup>s</sup> may ;  
Perhaps a frail memorial, but sincere,  
Not scorn'd in heaven, though little noticed here.  
Could Time, his flight revers'd, restore the hours  
When, playing with thy vesture's<sup>s</sup> 'tissued flowers,  
The violet, the pink, and jessamine,  
I pricked them into paper with a pin—  
(And thou wast happier than myself the while,  
Wouldst softly speak, and stroke my head and smile),  
Could those few pleasant days again appear,  
Might one wish bring them, would I wish them here ?  
I would not trust my heart—the dear delight  
Seems so to be desir'd, perhaps I might. —  
But no—what here we call our life is such,  
So little to be lov'd, and thou so much,  
That I should ill requite thee to constrain  
Thy unbound spirit into bonds again.

Thou, as a gallant bark from Albion's<sup>s</sup> coast  
(The storms all weather'd, and the ocean cross'd)  
Shoots into port at some well-haven'd isle,  
Where spices breathe, and brighter seasons smile,  
There sits quiescent on the floods that show  
Her beauteous form reflected clear below,  
While airs impregnated with incense play  
Around her, fanning light her streamers gay :  
So thou, with sails how swift ! hast reach'd the shore  
"Where tempests never beat nor billows roar,"  
And thy loved consort on the dangerous tide  
Of life, long since has anchor'd by thy side.  
But me, scarce hoping to attain that rest,  
Always from port withheld, always distress'd—  
Me howling blasts drive devious, tempest-toss'd,  
Sails ripp'd, seams opening wide, and compass lost,  
And day by day some current's thwarting force  
Sets me more distant from a prosp'rous course.  
Yet oh the thought, that thou art safe, and he !  
That thought is joy, arrive what may to me.  
My boast is not, that I deduce my birth  
From loins enthron'd, and rulers of the earth ;

But higher far my proud pretensions rise—  
 The son of parents pass'd into the skies.  
 And now, farewell—Time unrevoked has run  
 His wonted course, yet what I wish'd is done.  
 By contemplation's help, not sought in vain,  
 I seem to have lived my childhood o'er again ;  
 To have renew'd the joys that once were mine  
 Without the sin of violating thine ;  
 And, while the wings of Fancy still are free,  
 And I can view this mimic show of thee,  
 Time has but half succeeded in his theft—  
 Thyself remov'd, thy power to soothe me left.

<sup>1</sup> *My Mother's Picture*.—This poem was written by Cowper on the receipt of his mother's picture in 1790. This was ten years before the poet's death. He had lost his mother when he was only six years old.

<sup>2</sup> *Elysian reverie*.—Delightful contemplation: *Elysium* being the home of the blest.

<sup>3</sup> *Wretch*.—Wretched.

<sup>4</sup> *Pastoral house*.—So called because it was the clergyman or pastor's house. The poet's father was a clergyman.

<sup>5</sup> *Humour*.—Capricious temper.

<sup>6</sup> *Humours*.—Poetic lines.

<sup>7</sup> *Vesture's tissued flowers*.—The flowers on his mother's dress; *tissued*, woven.

<sup>8</sup> *Albion*.—England: so called from its white cliffs of chalk [*L. albus*, white].

## ON STRIKES.

[From a speech by Mr. GLADSTONE, the eminent statesman, to Welsh colliers, who had "struck" for higher wages, and refused to return to work after they had gained their point, unless four men who had not struck were dismissed.]

IF I understand the facts, they are these. A question arose between you and the Aston Hall Colliery Company as to wages. I say the more wages you can get the better, if they are used well. In that case none can have too much ; and if they are used ill none can have too little. A question arose as to the amount of wages ; and, as I understand, four workmen in the pit differed from the majority of workmen, as they thought fit to accept the wages offered by the Company. The majority, in the exercise of their undoubted right, refused to work for less than what they considered to be the value of their labour ; but these men, who thought otherwise, though they were only four, had as good a right to form an opinion as the majority had ; and if we have come in this country to refuse freedom of opinion and

liberty of action to those who form a minority, in my opinion the sooner we get out of it the better. I am told these four men have committed no other offence except working upon terms which you were unwilling to accept; but as the allegation stands, these men for that offence are to be dismissed, or the general body of miners won't go to work in the pit. Well, I am very loth to believe that that demand has been made upon these grounds, and would first ask if I am correct in my statement.

[This being admitted, Mr. Gladstone continued]:—That is a very serious matter. These men have done nothing. What right have you to ask that they shall demand certain wages? Do not suppose you will deny them the right of working for what they please. What is the nature of your right, which you enjoy in common with everybody else? Liberty of judgment and of action—that is the foundation of your right. It is not because you are a greater number, and that those who differ from you are a smaller number, but because you have a title to liberty; and that liberty, which the people of this country won for themselves, and have enjoyed for many generations, is the liberty of the few as well as of the many; and if one workman chooses to work for nothing in the face of a thousand other men, he has as good a right to do so as the thousand have to say what they will work for.

Now, it seems you deny these four men the right which you claim for yourselves—the right, namely, to work on terms satisfactory to the workers—and you are asking the Aston Hall Colliery Company to do that which, in my opinion, would be mean and dishonourable; and I would go further, and say that you here present would not have respected them if they had done as you required. You could not respect a man who, for his own interest, to please a majority, would turn round upon a few men who had stood by him in the time of his difficulty. I do not presume to say which side is right in this dispute; but as no

one has any right to interfere with you, so you have no right to interfere with others.

\* \* \* \* \*

I think you know we all require learning in our duties one towards another. The rich have a great deal to learn in their duties to the poor, and employers in their relations to workmen ; but, depend upon it, workmen have a great deal to learn also, and permit me to say they have a great deal to learn in their relations one to another. I have had discussions—friendly discussions—with leaders of trades' unions, and have spoken my mind very plainly on such matters as the attempts made to render the pay of a good workman equal to that of a bad workman, as the attempts made to repress a man from doing as much as he can do, as the attempts made to discourage the labour of women, and to limit the number of " young hands."

Those errors will, I believe, cure themselves. But when it comes to an attempt to interfere with the liberty of others, it is a very serious matter. And I say to you as Englishmen, as men who possess and value liberty, there can be no true enjoyment of liberty where a man does not respect the liberty of everybody else just as much as he respects his own.

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### THE DEATH OF THE BRAVE.

How sleep the brave, who sink to rest  
By all their country's wishes blest !  
When spring, with dewy fingers cold,  
Returns to deck their hallowed mould,  
She there shall dress a sweeter sod  
Than Fancy's feet have ever trod.

By fairy hands their knell is rung,  
By forms unseen their dirge is sung :  
Their honour comes, a pilgrim grey,  
To bless the turf that wraps their clay ;  
And Freedom shall awhile repair,  
To dwell a weeping hermit there !

**LIGHT.****REFLECTION AND REFRACTION.**

WE see an object by means of rays of light proceeding from that object to the eye. If, therefore, you are holding a candle for a person to look at something, you must take care that the light of the candle falls upon the thing he wishes to see. If, for instance, a person is looking at a picture on the wall by candle-light, the candle must be so held that its rays may fall upon the picture; then some of the rays will be absorbed by the picture, but most will be reflected, and of the reflected rays many will enter the eye of the spectator who is standing in a suitable position.

We know that a crowd of spectators can see the picture at the same time; but if only one ray of light came from each point of the picture, then it could not be visible to more than one person in the room. It therefore follows that from each point of the picture numberless rays must proceed in all directions; and indeed the eye of each spectator receives not merely a single ray from each point of the picture, but a cone or pencil of rays like this:



Fig. 1.

When we look at a thing partly in air and partly in water—as, for instance, an oar of a boat—it appears to be broken. What is the explanation of this curious fact?

Place a shilling at the bottom of a basin; then walk backwards until the rim hides the coin—or, what is the same thing, until a line drawn from your eye over the rim of the basin misses the shilling (fig. 2). Remaining in the same position, let water be poured into the basin, and the shilling

will appear to your view, though it has remained exactly where it was.

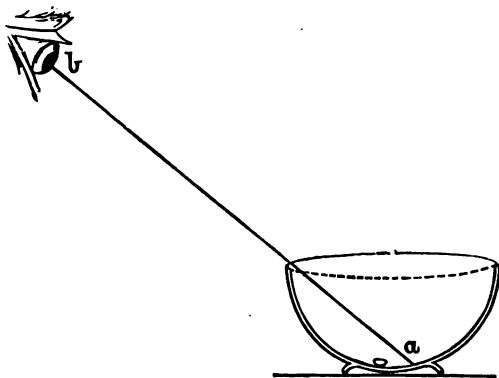


Fig. 2.

This proves that when a ray of light (see the line *a b* in the figure) passes from water into air, or the contrary, it is bent or *refracted*.

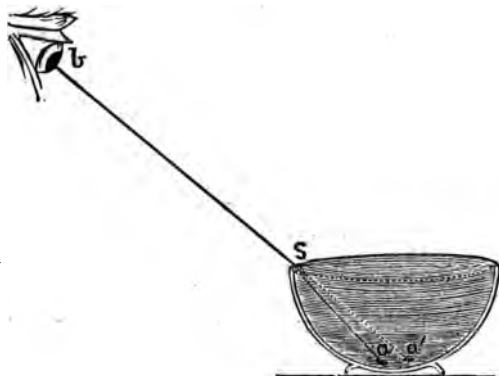


Fig. 3.

In fig. 3, the line *a b*, leading from the shilling to the eye, is bent or refracted at *s*, the surface of the water. Now,

as we naturally think that every ray of light is straight, we imagine that the ray  $bs$  has proceeded from  $a$ ; and so we conclude that the shilling has risen from  $a$  to  $a'$ .

It has been said above that a ray of light in passing from water into air is bent or refracted; but there is an exception to this general rule. If you dip an oar into the water in a slanting direction, it will seem broken on account of this refraction, but if you hold it perfectly upright it will not seem broken.

Any substance through which light can pass is called a

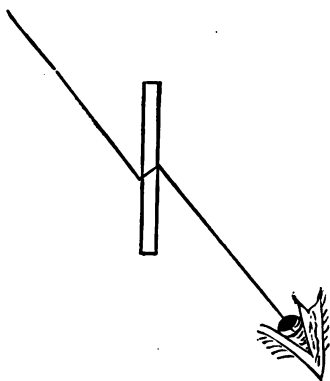


Fig. 4.

medium, and different media have different densities. Thus glass is denser than water, and water is denser than air. We can now state the *law of refraction*.

When a ray of light, passing through one medium, meets another medium of different density *in a slanting direction*, it is refracted or bent. Thus a ray of light passing through water into air in a slanting direction is *bent* at the surface of the water (fig. 3). Thus, again, when a ray of light passes through a pane of glass in a slanting direction, it is twice refracted—viz., when it enters and when it leaves the glass (fig. 4).



Similarly, a ray which passes through three panes of glass will be six times refracted.

If the ray does not fall in a *slanting* direction, there is no refraction.

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### LENSES.—VISION.

A LENS is a circular piece of glass having one or both sides curved either inwards or outwards. There are six kinds of lenses, the most useful of which is the double-convex lens (see fig. 1).

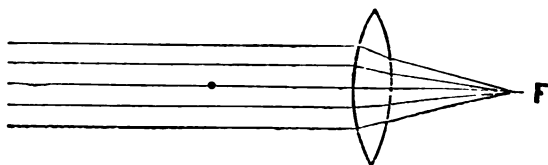


Fig. 1.

A lens refracts all rays which pass through it except that which goes through its centre. In most cases there are two refractions—one on entering the lens, and another on leaving it at the other side.

Let us now see what effect a double-convex lens will have on a number of parallel rays of light. With the exception of one passing through the centre of the lens, they must all be refracted twice, and it will be found that they meet in a point (*F*) on the other side of the lens.

This point *F* is called the *Principal Focus* of the lens. There is another principal focus on the left side of the lens. It is marked by a dot, and is the same distance on the left as *F* is on the right of the lens. (The principal foci are shown in succeeding figures by dots.)

Let us now see what will be the effect of a pencil of rays meeting a lens like that in fig. 1 above.

meeting a lens like that in Fig. 1. If the pencil of rays proceeds from the point  $P$ , beyond the principal focus on the left, the rays will be refracted and brought to a focus ( $f$ ) beyond the principal focus on the other side of the lens.

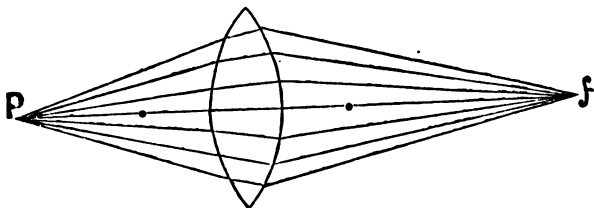


Fig. 2.

It will be convenient for us, when we want to show how an object is viewed, to draw just two pencils of rays from

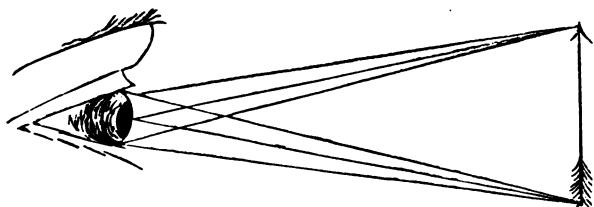


Fig. 3.

the extremities of that object. Thus let fig. 3 represent an eye beholding an object. From each end of the arrow (the object looked at) we have a pencil of rays to the eye, each pencil consisting of two or three rays. Such is the plan we are obliged to follow, for it would be quite impossible to draw *all* the pencils and *all* the rays, for they are innumerable.

The eye is a wonderful instrument. It may be briefly described as a small round chamber, having a blank wall at the back called the *retina*, and a window in front bulging out like the glass of a watch. The eyelids form a sort of

outside shutter for this window; whilst within the eye hangs a sort of coloured curtain to the window, called the *iris*, having a hole in the centre known as the *pupil*. Behind the pupil, through which light enters the eye, is a double-convex lens, not of glass, but of some substance which serves the same purpose. It is the function of the lens to refract the rays from any object looked at, so as to form an image of the object on the retina.

Let us now draw the same two pencils of rays as in fig. 3, and see what becomes of them when they pass into the eye. The lower pencil is drawn with dotted lines for the sake of clearness.

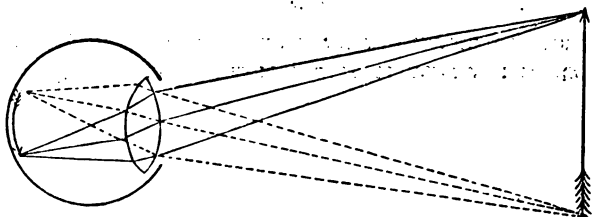


Fig. 4.

The pencils have been refracted by the lens in the eye, have crossed each other, and a small picture of the arrow is seen on the retina upside down.

For the purpose of distinct vision it is necessary that all the rays from the same point of an object should come to a focus, or meet in one point, on the retina. If a person's eyesight is imperfect, the image is formed a little in front of the retina, or a little behind it, according as a person is "near-sighted" or the reverse. When this is the case, the proper remedy is the use of a couple of lenses, called a pair of spectacles, to enable the eyes to do their duty properly.

But when the eye has no defect, it has *in itself* the power of altering its own lens, according as it is looking at a distant or a near object, so as to throw the focus always on the retina.

You may test this for yourself in a minute by trying with one eye to look at the same time at a fly on the window pane and a tree in a distant meadow in a straight line beyond the fly: you cannot see both together distinctly. When you direct your attention to the tree, your eye adjusts itself for that purpose, and the fly becomes quite indistinct: when you transfer your attention to the fly, you can actually *feel* that a movement does take place in the eye, which is adjusting itself again to make the fly appear distinct,—and then the tree is blurred and misty.

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### THE MICROSCOPE.

As a first step towards understanding the microscope, let us see what will be the result if we look at an object (say an arrow), through a double-convex lens. The arrow is to be placed beyond the principal focus. We shall draw one pencil of rays from the head of the arrow, and one ray only (to represent a pencil) from the other extremity. Fig. 1 will show what takes place.

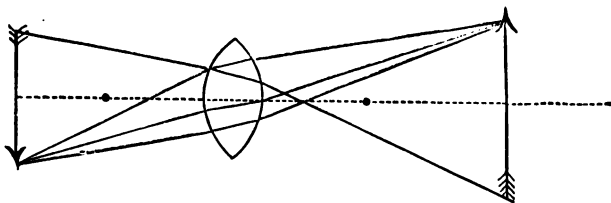


Fig. 1.

The rays starting from the head of the arrow meet the lens, are refracted, and come to a focus on the opposite side beyond the principal focus; and the ray from the other extremity of the arrow similarly.

But which is the right way of regarding this figure? Is the eye supposed to be looking from right to left, or from

left to right? Is the small arrow or the large one the object? *Just whichever you please.* If the small arrow be the object, then the large arrow is the *picture* formed by the lens, and it is this magnified arrow which the eye sees. On the other hand, if the large arrow be the object, the small arrow is the picture, and in this case your lens makes the object look smaller. You can therefore use a lens in this manner either to *magnify* or to *diminish*, but the picture formed by the lens will always be *upside down*.

Notice that the object and the picture are each beyond the principal focus.

Microscopes are of two kinds, simple and compound.

A *simple microscope* is nothing more than a lens like that in fig. 1, only it is generally used in a different manner—the object being brought much nearer the lens: in fact, *within its principal focus*.

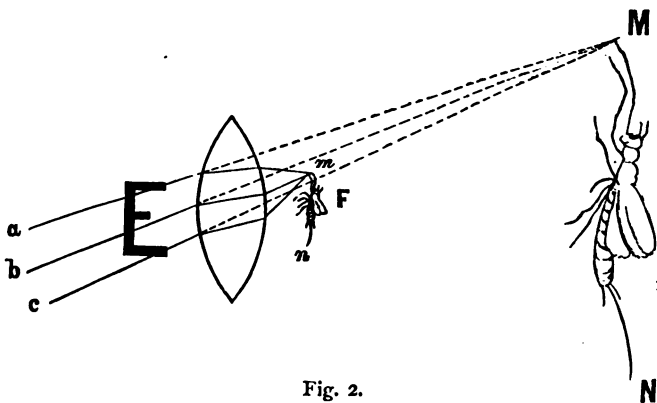


Fig. 2.

Fig. 2 is an illustration of the use of the simple microscope. The object, *m n*, is brought within the principal focus *F*: *m a*, *m b*, *m c* are a pencil of rays which, being refracted by the lens, diverge towards *a*, *b*, *c*, but when produced backwards meet in a focus in *M*. In like manner a

pencil proceeding from  $n$  would be refracted, and meet in a focus in  $N$ . Thus a magnified image of the object will be formed between  $M$  and  $N$ , and it is this magnified image which is seen by the eye (represented in the figure by the letter  $E$ ).

Now *why* should the eye see the image  $M N$  instead of the object  $m n$ ? The reason is not hard to see. The rays  $a, b, c$  enter the eye in *exactly the same direction as if they had proceeded from  $M$* . The eye is therefore deceived, and thinks it sees a large object  $M N$ , instead of the small object  $m n$ , which it is really inspecting through the lens. In the same manner, you will remember, in a previous lesson, we explained that a shilling could be made to *appear* where it really is not.

The simplest form of the *compound microscope* consists of two lenses, the one called the *object-glass*, used as in fig. 1; the other called the *eye-glass*, used as in fig. 2. Fig. 3 shows how these two lenses are combined to

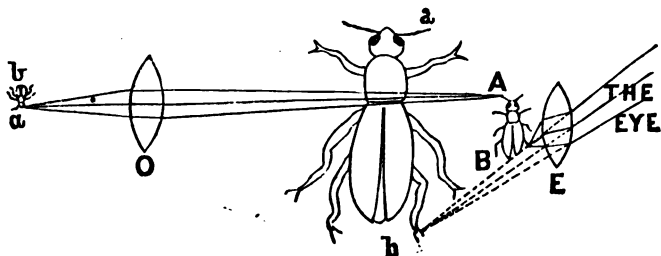


Fig. 3.

obtain great magnifying powers:  $a b$  is a small object placed beyond the principal focus of the object-glass  $O$ . According to what has already been fully explained in fig. 1, there will be a *magnified inverted image* of the object formed at  $A B$ . The lens  $E$ , forming the *eye-glass*, is so placed that this magnified image  $A B$  is within its principal focus: consequently the eye, according to what has been already

explained in fig. 2, sees at **a b** a magnified image of the image **A B**. In the figure we have drawn one pencil of rays proceeding from **a** and coming to a focus at **A**, which will give you an idea how the first image **A B** is formed; and then we have drawn a pencil proceeding from **B** (a point in the image), refracted by the lens **E**, and brought to a focus at **b**, in the manner before explained.

These lenses are enclosed in a glass cylinder, which is blackened on the inside, in order to keep out all rays of light proceeding from other objects, so that the object under inspection may *alone* receive attention.

Therefore any one examining an object through a compound microscope obtains his knowledge of it by means of three successive images:—

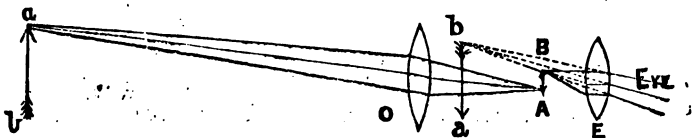
1. The object-glass produces a magnified image of the object, between the two lenses.
2. The eye-glass produces a second magnified image of this first magnified image.
3. The lens in the eye causes a third image of this second image to appear on the retina of the eye; and it is from this image on the retina (which is an image of an image of an image of the object), that the mind obtains its knowledge of the object.

## THE TELESCOPE.

THE telescope in its simplest form is constructed on the same principles as the compound microscope already described. In the figure we have an arrow **ab** to represent a distant object. A pencil of rays proceeding from **a** would be refracted by the object-glass **O**, and come to a focus at **A**, and thus a *diminished and inverted* image of the arrow would be formed at **A B**.

This image is viewed by the eye through the eye-glass **E**;

which, as in the microscope, forms a magnified image *a b* of the image A B. These lenses are likewise for convenience placed in a brass cylinder.



What, then, is the *difference* between a compound microscope and a telescope? There are two chief points of difference.

1. In the microscope the object is *near* the object-glass; consequently a *magnified* image is formed by this lens, which image is further magnified by the eye-glass.

In the telescope the object is distant, and therefore a *diminished* image of the object is formed by the object-glass, which diminished image is magnified by the eye-glass.

Perhaps some one may wonder why we should use an object-glass at all in the telescope if it forms a *diminished* instead of a magnified image. The answer is, that we must use this object-glass to form an image, in order that we may have this image within our *reach*. Suppose we are wishing to view the moon. We cannot place the moon, as we can a fly, within the principal focus of our lens; but if we can form an *image* of the moon, we *can* place this image where we like. We therefore use the object-glass TO FORM AN IMAGE: in the microscope this image is a magnified one,—so much the better; in the telescope, however, it cannot be otherwise than a diminished one. We then use the eye-glass TO MAGNIFY THE IMAGE which the other lens has formed.

2. The second chief difference between the compound microscope and the telescope is this,—that as the microscope is intended to view a very small object, a very small object-glass is used; but as the telescope is used for large



objects at a great distance, it is important to get as many rays of light as possible from that distant object,—therefore the larger the object-glass, the more rays of light will it collect, and the brighter will be the image formed.

The telescope which has been described is commonly known as the astronomical or night telescope. It causes objects to appear *inverted*. This matters very little in viewing the heavenly bodies ; but when we look at distant objects by daylight, it is desirable that they should appear in their right position. This is accomplished by means of additional lenses, but we must be content to refer you to other books for fuller information.

We will finish our lesson with a short history of the telescope. The date of its invention can hardly be fixed, nor is it certain who has the best claim to be considered its inventor ; but Galileo, in the year 1609, was the first to make any really important discoveries by means of the telescope.

In those, its early days, the telescope was afflicted with one very great fault,—the image of the object which it gave was tinged with colour. It was found that the less curved the object-glass was, the less of this objectionable colour appeared. But such an object-glass would have its focus at a great distance, and therefore the telescopes of those days were often exceedingly lengthy and cumbersome. Indeed, telescopes were actually constructed in this manner: the object-glass was fixed to a tall pole, and adjusted by means of a string held in the hand ; and the image thus formed (at a focal distance perhaps of 120 feet from the object-glass) was viewed by means of an eye-glass.

Sir Isaac Newton's discoveries respecting the laws of refraction led men to despair of improving this kind of telescope. A different kind of instrument was therefore invented,—which we cannot find room to explain, more than by saying that an image was formed by means of a *mirror* instead of a *lens*, and then this image was magnified

an eye-glass. These are called *reflecting* telescopes, the others *refracting* telescopes.

Herschel made a very large reflecting telescope, forty feet long, the mirror of which measured four feet across. The largest in the world is Lord Rosse's, which is more than fifty feet long, and has a mirror measuring six feet in diameter.

Meanwhile, in 1757, Dollond, a London optician, had succeeded in discovering that if the object-glass be made of two pieces, of *different kinds of glass*, an image will be formed free from colour. Refracting telescopes which are made in this way are called *achromatic* (that is, colourless). Since then some very fine refracting telescopes have been made,—notably one lately finished by Cooke and Son, of York, which is thirty-two feet long, the object-glass measuring more than two feet in diameter.

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### THE USES OF ADVERSITY.

Now my co-mates, and brothers in exile,  
 Hath not old custom made this life more sweet  
 Than that of painted pomp? are not these woods  
 More free from peril than the envious court?  
 Here feel we but the penalty of Adam,  
 The seasons' difference; as the icy fang  
 And churlish chiding of the winter's wind,  
 Which when it bites and blows upon my body,  
 Even till I shrink with cold, I smile and say,  
 This is no flattery; these are counsellors  
 That feelingly persuade me what I am.  
 Sweet are the uses of adversity,  
 Which, like the toad, ugly and venomous,  
 Wears yet a precious jewel in his head.  
 And this our life, exempt from public haunt,  
 Finds tongues in trees, books in the running brooks,  
 Sermons in stones, and good in everything.  
 AS YOU LIKE IT,

## THE TWO HEROINES.

THE great revolution of 1789 in France was succeeded by a great war which ended only in 1815 with the battle of Waterloo. In the beginning of this war France was invaded by the Austrians and Prussians, and to resist the invaders the whole nation rose in arms. Women even accompanied their husbands to the seat of war, and daughters their fathers : all ages and both sexes wished to contribute, by their valour or their blood, to the maintenance of liberty and the safety of their fatherland.

Among the women who distinguished themselves at this extraordinary period were the two eldest daughters of M. de Fernig, an old officer who had retired to the village of Mortagne, on the frontier of France, touching Belgium. When the enemy threatened to invade his beloved country, this veteran soldier formed a corps of volunteers at Mortagne, and not only drilled the peasants in all the country round, but communicated to them his own military ardour and patriotism. He inured them to war by continual skirmishes with the enemy's horse that dared to cross the frontier to pillage and destroy. Night after night was he engaged in this perilous enterprise, his wife and children trembling for his life ; at last, his two eldest daughters, Théophile and Félicité, formed the daring resolution of donning a soldier's dress and watching over their father's safety by fighting in the ranks near his person, but all unknown to him.

So well did they carry their resolution into effect, that for several successive nights they joined the column under the command of their father, fired with the rest upon the Austrian marauders, inured themselves to marching, fighting, and bloodshed, and electrified by their example the brave peasants of the hamlet.

Their secret was for a long time successfully kept. M. de Fernig, on returning to his home in the morning, and recounting at the breakfast-table the adventures, the perils, and the exploits of the previous night, never suspected for a moment that his own daughters had fought in the front rank and sometimes preserved his life.

Meanwhile, Beurnonville, who was in command of a French army posted near Mortagne, having heard of the heroic exploits of M. de Fernig's volunteers, came at the head of a troop of cavalry to review them. As he entered the village he met them returning from their night's expedition, bringing several of their wounded comrades and five prisoners. The general stopped M. de Fernig, thanked him in the name of France, and expressed a wish to honour his brave peasants by passing them in review as regular soldiers.

They were at once drawn up in line, and the French general dismounted from his horse to make an individual inspection. Beurnonville, having noticed two young volunteers keeping in the background and trying to elude observation, desired their captain to bring them forward. M. de Fernig ordered them to advance, the ranks opening for them to pass to the front. Their male attire, their faces discoloured with the smoke of the powder they had fired during the fight, their lips blackened in biting the cartridges, all served to conceal them from the knowledge of their own father. "Who are you?" he demanded, in a tone of surprise. Théophile and Félicité fell at his knees, and implored his pardon for deceiving him. The proud father, unable to restrain his tears, presented them to the general, who described this scene in a despatch to the Government. The names of these two heroines were re-echoed throughout France, and the Government sent to them horses and arms of honour in the name of the nation.

These two young girls, Théophile and Félicité, now openly followed the profession of arms, and won the admiration of their countrymen by their valour, and of their

enemies by their humanity. They combined the courage of a man with the tenderness of a woman. They were as forward in saving a wounded enemy after the battle, as in risking their own lives while the battle was raging. The great French general, Dumouriez, often set these two charming girls before his soldiers as a model of patriotism; not a soldier in the army dared to turn his back on an enemy when he knew that they were in the ranks fighting. Many instances of their bravery and humanity have been related, but none exceeds the following account in romantic interest.

In one of the encounters between the French advanced-guard and the Austrian rear-guard, one of these young girls, Félicité, who was carrying the orders of Dumouriez to the officer in command of the advanced column, drawn on by her eagerness to deliver the general's despatch, found herself surrounded, with a handful of French hussars, by a detachment of the enemy's cavalry. Released with difficulty from the sabres which flashed in her face, she turned her horse with the hussars to rejoin the columns on the march in the rear, when she perceived a young Belgian officer who had taken service in the French army, thrown from his horse by a rifle-shot, and trying to defend himself with his sabre against some Uhlans on the point of killing him. Although this officer is unknown to the brave woman, the sight of his imminent danger brings Félicité to the spot: she kills two of the Uhlans with two pistol-shots, when the others withdraw; she dismounts, raises the wounded man, and puts him under the care of her hussars; she accompanies him to the ambulance, and recommends him to the special care of the surgeon.

This young Belgian officer was named Vanderwalen. Left, on the departure of the French army, in the hospital at Brussels, he forgot his wounds; but he could not forget the guardian angel he had seen on the field of battle. Her face was continually before him, whether awake or asleep:

now he saw her coming to his rescue when lying helpless on the ground, and again he saw her bending over him in the ambulance, and entreating the surgeon to have special care of him.

When Dumouriez was at length defeated by the Austrians, being suspected of treachery by the French government, he turned his back on his ungrateful country. Our two heroines also left the army, and all trace of them was lost,—so that when Vanderwalen, on his recovery, made inquiries about his preserver, he could get no intelligence respecting her or her relatives. The young officer resolved to travel in Germany in the hope of finding his deliverer. After searching in vain throughout the principal towns of Germany, he at length discovered the object of his search in Denmark.

His gratitude soon changed into love for the young girl, who had resumed the dress, the graces, and the modesty of her sex. He married her, and brought her into his own country. Théophile, her sister and companion in war, followed Félicité to Brussels. She died there, still young, without having been married. These two heroic sisters, inseparable in life, as on the field of battle, repose under the same cypress, near the old home of the young Belgian officer.

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### ON VIRTUE.

KNOW thou this truth, enough for man to know,  
"Virtue alone is happiness below."  
The only point where human bliss stands still,  
And tastes the good without the fall to ill :  
Where only merit constant pay receives,  
Is blest in what it takes and what it gives ;  
The joy unequall'd if its end it gain,  
And if it lose attended with no pain :  
Without satiety,<sup>1</sup> though e'er so bless'd,  
And but more relish'd<sup>2</sup> as the more distress'd ;

The broadest mirth unfeeling folly wears,  
 Less pleasing far than virtue's very tears :  
 Good, from each object, from each place acquired,  
 For ever exercised yet never tired ;  
 Never elated while one man's oppress'd ;  
 Never dejected while another's blest :  
 And where no wants, no wishes can remain,  
 Since but to wish more virtue is to gain.  
 See the sole bliss Heav'n could on all bestow !  
 Which who but feels can taste, but thinks can know ;  
 Yet poor with fortune, and with learning blind,  
 The bad must miss ; the good, untaught, will find :  
 Slave to no sect, who takes no private road,  
 But looks through Nature, up to Nature's God ;  
 Pursues that chain which links th' immense design,  
 Joins heaven and earth, and mortal to divine ;  
 Sees, that no being<sup>a</sup> any bliss can know,  
 But touches some above, and some below ;  
 Learns, from this union of the rising whole,  
 The first, last purpose of the human soul ;  
 And knows where Faith, Law, Morals, all began,  
 All end—in Love of God, and Love of Man.

God loves from whole to parts ; but human soul  
 Must rise from individual to the whole.  
 Self-love<sup>b</sup> but serves the virtuous mind to wake,  
 As the small pebble stirs the peaceful lake ;  
 The centre moved, a circle straight succeeds,  
 Another still, and still another spreads ;  
 Friend, parent, neighbour, first it will embrace,  
 His country next, and next all human race ;  
 Wide and more wide, th' o'erflowings of the mind  
 Take ev'ry creature in of ev'ry kind ;  
 Earth smiles around, with boundless bounty blest,  
 And Heav'n beholds its image in his breast.

<sup>a</sup> Without satiety (*sa-ti'e-ty*).—Virtue never cloy, or makes a person feel he has had more than enough.

<sup>b</sup> More reliabed, etc.—The exercise of virtue gives more than its usual satisfaction, when it labours under unusual difficulties.

<sup>c</sup> No being, etc.—No one can be

happy without making others around him happy too.

<sup>d</sup> Self-love, etc.—Regard to one's own feelings in a virtuous person leads him to reflect on what is pleasing to others ; and so enables him to carry out the golden rule: "To do to others as I would that they should do to me."

## INDIAN MODE OF TORTURE.

[JAMES FENIMORE COOPER, born in New Jersey 1789; died 1851. In his novels he portrays the life and character of the Red Indians and the white settlers in the backwoods of America. *Deerslayer* in the following narrative is a white settler, who has been captured by a hostile tribe of Indians called the Iroquois or Hurons.]

RIVENOAK (the chief of the tribe) now directed the proper persons to bind the captive. Deerslayer offered no resistance. He submitted his arms and his legs, freely if not cheerfully, to the ligaments of bark. As soon as the body of Deerslayer was withed in bark sufficiently to create a lively sense of helplessness, he was literally carried to a young tree and bound against it, in a way which effectually prevented him from moving, as well as from falling.

All were now impatient for the fiendish torture of their captive. It was one of the common expedients of the savages, in their tortures, to put the nerves of their victims to the severest proofs. On the other hand, it was a matter of Indian pride to betray no yielding to terror or pain; but for the prisoner to provoke his enemies to such acts of violence as would soonest produce death. Many a warrior had been known to bring his own sufferings to a more speedy termination by taunting reproaches and reviling language, when he found that his physical system was giving way under his agony of sufferings. This happy expedient of taking refuge from the ferocity of his foes in their passions was denied Deerslayer, however, by his peculiar notions of the duty of a white man; and he had stoutly made up his mind to endure everything in preference to disgracing his colour.<sup>1</sup>

No sooner did the young men understand that they were at liberty to commence, than some of the boldest and most forward among them sprang into the arena, tomahawk<sup>2</sup> in hand. Here they prepared to throw that dangerous weapon, the object being to strike the tree as near as possible to the victim's head without absolutely hitting him. This was so



hazardous an experiment, that none but those who were known to be exceedingly expert with the weapon were allowed to enter the lists at all, lest an early death might interfere with the expected entertainment.

The first youth who presented himself for the trial was called the Raven, having as yet had no opportunity of obtaining a more warlike *sobriquet*.<sup>3</sup> After a suitable number of flourishes and gesticulations, that promised much more than he could perform, the Raven let the tomahawk quit his hand. The weapon whirled through the air with the usual evolutions, cut a chip off the sapling to which the prisoner was bound, within a few inches from his cheek, and stuck in a large oak that grew several yards behind him. This was decidedly a bad effort, and a common sneer proclaimed as much, to the great mortification of the young man. On the other hand, there was a general but suppressed murmur of admiration at the steadiness with which the captive stood the trial. The head was the only part he could move, and this had been purposely left free, that the tormentors might have the amusement, and the tormented endure the shame, of dodging to avoid the blows. Deerslayer disappointed their hopes by a command of nerve that rendered his whole body as immovable as the tree to which it was bound. Nor did he even adopt the natural and usual expedient of shutting his eyes; the firmest and oldest warrior of the red-men never having more disdainfully denied himself this advantage, under similar circumstances.

The Raven had no sooner made his unsuccessful and puerile effort, than he was succeeded by the Moose, a middle-aged warrior, who was particularly skilful in the use of the tomahawk, and from whose attempt the spectators confidently looked for gratification. He took his stand quietly, but with an air of confidence, poised his little axe but a single instant, advanced a foot with a quick motion, and threw. Deerslayer saw the keen instrument whirling towards him, and believed all was over; still he was not

touched. The tomahawk had actually bound the head of the captive to the tree, by carrying before it some of his hair ; having buried itself deep beneath the soft bark. A general yell expressed the delight of the spectators, and the Moose felt his heart soften a little towards the prisoner, whose steadiness of nerve alone enabled him to give this evidence of his consummate skill.

Moose was succeeded by several young warriors, some of whom hurled the tomahawk, whilst others cast the knife—a far more dangerous experiment—with reckless indifference;<sup>4</sup> yet they always manifested a skill that prevented any injury beyond a graze to the captive. The unflinching firmness with which he faced his assailants excited a profound respect in the spectators, but this only provoked them to put the white man's nerves to further proof.

Fragments of dried wood were rapidly collected around the tree, and the splinters which it was intended to thrust into the flesh of the victim previously to lighting were also gathered. All this, so eagerly did every one act, was done in profound silence, while Deerslayer stood watching the proceedings as seemingly unmoved as one of the pines of the hills.

The fire was immediately applied to the pile, not with the intention of absolutely destroying the life of their victim by this means (for they fully intended to carry his scalp<sup>5</sup> with them into their village), but in the hope of breaking down his resolution and reducing him to the level of a complaining sufferer. With this view the pile of brush and branches had been placed at a little distance from the tree ; but this distance had been miscalculated, and the flames began to wave their forked tongues in a proximity to the face of the victim that would have proved fatal in another instant had not an Indian female pushed through the circle, advanced to the heap, and with her foot dashed aside the lighted twigs.

At the same instant a young Indian came bounding

through the Huron<sup>6</sup> ranks, leaping into the very centre of the circle in a way to denote the utmost confidence, or a temerity bordering on foolhardiness. Three leaps carried the warrior to the side of Deerslayer, whose withes were cut in the twinkling of an eye, with a quickness and precision that left the prisoner perfect master of his limbs. Not till this was effected did the stranger bestow a glance on any other object; then he turned, and showed the astonished Hurons the noble brow, fine person, and eagle eye of a young warrior in the paint and panoply of a Delaware. By his side stood Wah, his betrothed, who had come with him to the rescue of their friend, the white man, and who had dashed aside the burning wood.

"Hurons," said the young warrior, as he looked boldly and in defiance on the crowd around him, "this earth is very big. The great lakes are big too; there is room beyond them for the Iroquois; there is room for the Delawares on this side. I am Chingachgook, the chief of the Delawares. This is my betrothed; that pale-face is my friend. My heart was heavy when I missed him; I followed him to your camp, to see that no harm happened to him. All the Delaware girls are waiting for Wah; they wonder that she stays so long. Come, let us say farewell, and go on our path."

At this instant a sound unusual to the woods was heard, and every Huron, male and female, turned an ear to listen, with faces filled with expectation. The sound was regular and heavy, as if the earth was struck with beetles.<sup>7</sup> Objects became visible among the trees of the background, and a body of troops was seen advancing with measured tread. They came upon the charge, the scarlet of the King's livery shining among the bright green foliage of the forest. A general yell burst from the Hurons; it was succeeded by the hearty cheers of England. The timely arrival of troops had been effected by Deerslayer's friends, who, during his captivity, had been actively occupied planning his rescue.

<sup>1</sup> **His colour.**—Deerslayer was a white man.

<sup>2</sup> **Tomahawk.**—A light war-hatchet of the North American Indians.

<sup>3</sup> **Sobriquet.**—An assumed name:

<sup>4</sup> **With reckless indifference.**—Careless of the consequences.

<sup>5</sup> **His scalp.**—The skin of the top of

the head, carried off from their fallen enemies as a token of victory by the North American Indians.

<sup>6</sup> **Huron.**—The name of the tribe of Indians that were torturing the white man.

<sup>7</sup> **Beetles.**—Not of course black beetles, but heavy mallets such as are used by paviors.

### TRIFLES.

SINCE trifles make the sum of human things,  
And half our misery from our foibles' springs ;  
Since life's best joys consist in peace and ease,  
And though but few can serve, yet all may please ;  
O let the ungentle spirit learn from hence,  
A small unkindness is a great offence.  
To spread large bounties though we wish in vain,  
Yet all may shun the guilt of giving pain.  
To bless mankind with tides of flowing wealth,  
With rank to grace them, or to crown with health,  
Our little lot denies ; yet liberal still,  
God gives its counterpoise<sup>3</sup> to every ill ;  
Nor let us murmur at our stinted powers,  
When kindness, love, and concord may be ours.  
The gift of minist'ring to others' ease,  
To all her sons impartial Heaven decrees,  
The gentle offices of patient love,  
Beyond all flattery, and all price above ;  
The mild forbearance at a brother's fault,  
The angry word suppress'd, the taunting thought :  
Subduing and subdued the petty strife,  
Which clouds the colour of domestic life ;  
The sober comfort, all the peace which springs  
From the large aggregate<sup>4</sup> of little things ;  
On these small cares of daughter, wife and friend,  
The almost sacred joys of home depend :  
There, Sensibility,<sup>5</sup> thou best may'st reign,  
Home is thy true legitimate domain.<sup>5</sup>

HANNAH MORE.

<sup>1</sup> **Foible.**—A feeble point in one's character.

<sup>2</sup> **Counterpoise.**—Something that serves to balance.

<sup>3</sup> **Aggregate.**—Sum total [*L. grex*, a flock ; hence congregation].

<sup>4</sup> **Sensibility.**—Delicacy of feeling—power of understanding the feelings of others.

<sup>5</sup> **Legitimate domain.**—The place which rightly belongs to one.

### THE QUEEN'S LIFE AT BALMORAL.

OUR beloved Queen was born at Kensington Palace, London, 24th May, 1819; she came to the throne 20th June, 1837; and in 1840 was married to Prince Albert of Saxe-Coburg-Gotha.<sup>1</sup> The Queen resides for a part of each year at Balmoral Castle,<sup>2</sup> in the Highlands of Scotland. This is a favourite resort of Her Majesty; for here she can enjoy beautiful scenery, fresh bracing air, and some of the freedom which belongs to the humblest of her subjects. Never were two persons more attached to each other than the Queen and her husband, the Prince Consort. His death in the prime of life, in the year 1861, caused universal grief in our land, and left a dark shadow around the throne, which even time itself has been unable to dispel.

In memory of the happy days which the Queen and her lamented husband spent together in their Highland home, Her Majesty has been pleased to permit the publication of a part of her diary,<sup>3</sup> written with her own hand, on the more striking incidents of her life at Balmoral. This interesting record was given to the nation under the title of "Leaves from the Journal of our Life in the Highlands." Our gracious Queen has dedicated the book to her devoted husband:—"To the dear memory of him who made the life of the writer bright and happy, these simple records are lovingly and gratefully recorded."

In thus taking her subjects into her confidence, and permitting them to share her thoughts and feelings, the Queen has probably had a double purpose in view—to illustrate the virtues and worth of the Prince who aided her as Queen by his wise counsel, and sweetened her domestic life by his love and sympathy; and to draw all classes of her subjects into one loyal and devoted nation, with the sovereign as their symbol and centre of union. Sir Arthur Helps, who

has edited the Queen's book, says: "No one wishes more ardently than Her Majesty that there should be no abrupt severance of class from class, but rather a gradual blending together of all classes—caused by a full community<sup>4</sup> of interests, a constant interchange of good offices, and a kindly respect felt and expressed by each class to all its brethren in the great brotherhood that forms the nation."

#### THE QUEEN'S DESCRIPTION OF BALMORAL.

*Friday, Sept. 8, 1848.*

We arrived at Balmoral at a quarter to three. It is a pretty little castle in the old Scottish style. There is a picturesque tower and garden in front, with a high wooded hill; at the back there is wood down to the Dee; and the hills rise all around. . . . . We lunched almost immediately, and at half-past four we walked out, and went up to the top of the wooded hill opposite our windows, where there is a cairn,<sup>5</sup> and up which there is a pretty winding path. The view from here, looking down upon the house, is charming. To the left you look towards the beautiful hills surrounding Lochnagar,<sup>6</sup> and to the right, towards Ballater, to the glen along which the Dee winds, with beautiful wooded hills. It was so calm and so solitary, it did one good as one gazed around; and the pure mountain air was most refreshing. All seemed to breathe freedom and peace, and to make one forget the world and its sad turmoils. . . . . When I came in, at half-past six, Albert went out to try his luck with some stags which lay quite close in the woods, but he was unsuccessful. They come down of an evening quite close to the house.

#### THE QUEEN AT THE KIRK.

*Oct. 29, 1854.*

We went to kirk,<sup>7</sup> as usual, at twelve o'clock. The service was performed by the Rev. Norman Macleod, of Glasgow; and anything finer I never heard. The sermon, entirely

extempore,<sup>8</sup> was quite admirable,—so simple, and yet so eloquent, and so beautifully argued out and put. The text was from the account of the coming of Nicodemus to Christ by night. Mr. Macleod showed in the sermon how we *all* tried to please *self*, and live for *that*, and in so doing found no rest. Christ had come not only to die for us, but to show how we were to live. The second prayer was very touching; his allusions to us were so simple, saying, after his mention of us, “bless their children.” It gave me a lump in my throat, as also when he prayed for “the dying, the wounded,<sup>9</sup> the widows, and the orphans.” Every one came back delighted; and how satisfactory it is to come back from church with such feelings! The servants and the Highlanders—*all*—were equally delighted.

#### THE QUEEN AND THE OLD WOMEN.

*Saturday, September 26, 1857.*

Albert went out with Alfred for the day, and I walked out with the two girls and Lady Churchill, stopped at the shop, and made some purchases for poor people and others; drove a little way, got out and walked up the hill to Balnacroft, Mrs. P. Farquharson's, and she walked round with us to some of the cottages, to show me where the poor people lived, and to tell them who I was. Before we went into any we met an old woman who, Mrs. Farquharson said, was very poor, eighty-eight years old, and mother to the former distiller. I gave her a warm petticoat, and the tears rolled down her old cheeks, and she shook my hand, and prayed God to bless me: it was very touching.

I went into a small cabin of old Kitty Kear's, who is eighty-six years old—quite erect, and who welcomed us with a great air of dignity. She sat down and spun. I gave her also a warm petticoat; she said, “May the Lord ever attend ye and yours, here and hereafter; and may the Lord be a guide to ye, and keep ye from all harm.” She was quite surprised at V<sup>10</sup>——'s height; great interest is taken in her.

We went on to a cottage to visit old Widow Symons, who is "past fourscore," with a nice rosy face, but was bent quite double; she was most friendly, shaking hands with us all, asking which was I, and repeating many kind blessings: "May the Lord attend ye with mirth and joy; may He ever be with ye in this world, and when ye leave it." To V——, when told she was going to be married, she said, "May the Lord be a guide to ye in your future, and may every happiness attend ye." She was very talkative; and when I said I hoped to see her again, she expressed an expectation that "she should be called any day," and so did Kitty Kear.

We went into three other cottages: to Mrs. Symons's (daughter-in-law to the old widow living next door), who had an "unwell boy"; then across a little burn to another old woman's; and afterwards peeped into Blair the fiddler's. We drove back, and got out again to visit old Mrs. Grant, who is so tidy and clean, and to whom I gave a dress and handkerchief, and she said, "You're too kind to me, you're over kind to me; ye give me more every year, and I get older every year." After talking some time with her, she said, "I am happy to see ye looking so nice." She had tears in her eyes, and speaking of V——'s going, said, "I'm very sorry, and I think she is sorry hersel'"; and, having said she feared she would not see her (the Princess) again, said, "I am very sorry I said that, but I meant no harm; I always say just what I think, not what is fut" (fit). Dear old lady! she is such a pleasant person.

<sup>1</sup> **Saxe-Coburg-Gotha.** — A small German state.

<sup>2</sup> **Balmoral Castle.** — Is situated on the river Dee, in Aberdeenshire, near Braemar.

<sup>3</sup> **Diary,** or journal, is a daily account of what happens [*L. dies*, a day. Mark the difference between *diary* and *dairy*].

<sup>4</sup> **Community of interests.** — A state of things in which a body of people have the same interest in *common* [*L. communis*, common].

<sup>5</sup> **A Cairn.** — A heap of stones raised in former times as a monument over the body of the dead.

<sup>6</sup> **Lochnagar.** — A conspicuous mountain, snow-capped for many months in the year.

<sup>7</sup> **Kirk.** — Scotch name for church.

<sup>8</sup> **Extempore.** (*ex-tem-po-re*). — Preached without notes.

<sup>9</sup> **The wounded, etc.** — It was in the time of the Crimean war.

<sup>10</sup> **V——.** — Victoria, the Princess Royal.



**BATTLE OF WATERLOO.**

IN March, 1815, all Europe was startled with the intelligence that the lion<sup>1</sup> engaged at Elba had contrived to escape, and was now at large in France. He was still the idol of the French nation. He was received with open arms, and by the 1st of June was ready to take the field with a large army.

Meanwhile a Prussian army of 100,000 men under Blucher, and one of about 80,000 British, Belgians, and Germans under Wellington, had marched into the Netherlands, while still larger armies of Austrians and Russians were rapidly approaching. Napoleon knew that his only chance depended on fighting before the allied forces could unite. On the 14th of June he crossed the frontier of France with 125,000 men, resolved to fight Blucher and Wellington separately, if possible. By the rapidity of his movements he engaged the two armies before they could unite. On the 16th of June he beat Blucher at Ligny,<sup>2</sup> and compelled him to retire.

The English army meanwhile took up a position at Waterloo. There Napoleon and Wellington met in battle for the first and last time. The French army mounted 250 cannon, the allied army had only about half that number. Each army consisted of about 70,000 men. The combatants were drawn up on two parallel ridges, with a slight hollow between. The night before the battle was very wet. The soldiers lay down in the meadows and the rye-fields, wrapping themselves in their blankets and overcoats, and drawing close around their camp fires. At four o'clock the grey dawn appeared, and then the soldiers were astir to prepare and eat the breakfast that might prove to be their last.

The first cannon was fired at twenty minutes past eleven. There had been some delay occasioned by the rain of the

night before, which had damped the cartridges in the loaded muskets in each army, so that they could be neither fired nor drawn. It seemed at one time as if there was to be no battle, or a battle without musketry. However, an English sergeant found that, by whirling his musket rapidly round, the cartridge became loose, and gradually came out. His example was followed by the two armies, now drawn up within sight of each other. The battle consisted of a succession of attacks by the French upon the British lines. Napoleon, after sending a heavy storm of cannon-shot into the British columns, would immediately charge down upon them with his splendid cavalry. The British were formed into compact squares to meet these fierce charges. A well-directed cannon-ball would often cut a lane in one of these solid squares; but before the cuirassiers<sup>3</sup> could arrive the living had drawn a little closer together and filled the places of the dead. Like an angry billow beaten back on a rock-bound coast, the fiery horsemen recoiled from the triple hedge of bayonet points, unharming but not unharmed. As they rode back, many a horse lost its rider, and many a rider lost his horse. Then the artillery would try the effect of another iron storm, and before the smoke could clear away another troop of gallant horsemen would rush madly on. When the strength of the French cavalry was almost spent in these bootless charges, nearly the whole of the British cavalry, their horses being comparatively fresh, dashed at full gallop into the hollow, and swept the lancers and cuirassiers of the enemy before them.

The Duke had for some time been longing that "either Blucher or night would come," when at four o'clock the boom of distant cannon gave the signal of his approach. Napoleon then knew that the time had come for one grand final attack. Putting himself at the head of the "Old Guard," which had been kept in reserve, he advanced with them to the foot of the British position, and there he left them under the command of Ney, his favourite general.

The British guards met them with a murderous volley at fifty yards, and then with a ringing cheer burst down the slope to encounter the "Invincibles"<sup>4</sup> of France. "They are hopelessly mixed," cried the fallen Bonaparte, as he rode away to the rear. "Let the whole line advance," was Wellington's final order.

The whole French army broke up like a frozen river by a sudden thaw; its fragments, some jammed together, and some loosely scattered, went rushing on in one headlong stream back to their own country. The forces under Wellington were too exhausted to pursue the vanquished foe. But Blucher was already on the field, and his soldiers took a terrible revenge for their past defeats.

Napoleon now ceased to be the central figure in the civilized world. He was banished to the Isle of St. Helena, in the South Atlantic, and there he died in 1821.—[Dawe and Lawson's *History of England*, published in the Holborn Series].

<sup>1</sup> **The lion.**—Napoleon Bonaparte, who had been banished from France in 1814 to the little Isle of Elba, in the Mediterranean, between Corsica and Italy.

<sup>2</sup> **Ligny.**—In the province of Namur, in the south of Belgium.

<sup>3</sup> **Cuirassiers.**—Soldiers wearing a cuirass—a kind of steel waistcoat: it was originally of leather [Fr. *cuir*, leather].

<sup>4</sup> **Invincibles.**—So called because they had never been beaten.

## A SOLDIER'S ACCOUNT OF THE BATTLE OF WATERLOO.

[MAJOR MACREADY gives the following narrative of what he observed at the Battle of Waterloo. It was published in the *United Service Magazine* in 1852.]

WHEN I reached Lloyd's abandoned guns, I stood near them for about a minute to contemplate the scene: it was grand beyond description. Hougomont<sup>1</sup> and its wood sent up a broad flame through the dark masses of smoke that overhung the field; beneath this cloud the French were indistinctly visible. Here a waving mass of long red feathers could be seen; there gleams as from a sheet of

steel showed that the cuirassiers<sup>2</sup> were moving; four hundred cannon were belching forth fire and death on every side; the roaring and shouting were indistinguishably commixed—together they gave me the idea of a labouring volcano. Bodies of infantry and cavalry were pouring down on us, and it was time to leave contemplation, so I moved towards our columns, which were standing up in square.

Our regiment and 73rd formed one, and 33rd and 69th another; to our right beyond them were the Guards, and on our left the Hanoverian and German legion of our division. As I entered the rear face of our square I had to step over a body, and looking down, recognised Harry Beere, an officer of our Grenadiers, who about an hour before shook hands with me, laughing, as I left the columns.

I was on the usual terms of military intimacy with poor Harry—that is to say, if either of us had died a natural death, the other would have pitied him as a good fellow, and smiled at his neighbour as he congratulated him on the step;<sup>3</sup> but seeing his herculean<sup>4</sup> frame and animated countenance thus suddenly stiff and motionless before me (I know not whence the feeling could originate, for I had just seen my dearest friend drop, almost with indifference), the tears started in my eyes, as I sighed out, "Poor Harry!" The tear was not dry on my cheek when poor Harry was no longer thought of. In a few minutes after, the enemy's cavalry galloped up and crowned the crest of our position.

Our guns were abandoned, and they formed between the two brigades, about a hundred paces in our front. Their first charge was magnificent. As soon as they quickened their trot into a gallop, the cuirassiers bent their heads, so that the peaks of their helmets looked like visors,<sup>5</sup> and they seemed cased in armour from the plume to the saddle.

Not a shot was fired till they were within thirty yards, when the word was given, and our men fired away at them.

The effect was magical. Through the smoke we could

see helmets falling, cavaliers starting from their seats with convulsive springs as they received our balls, horses plunging and rearing in the agonies of fright and pain, and crowds of the soldiery dismounted, part of the squadron in retreat, but the more daring remainder backing their horses to force them on our bayonets.

Our fire soon disposed of these gentlemen. The main body re-formed in our front, and rapidly and gallantly repeated their attacks.

In fact, from this time (about four o'clock) till near six, we had a constant repetition of these brave but unavailing charges. There was no difficulty in repulsing them, but our ammunition decreased alarmingly.

At length an artillery waggon galloped up, emptied two or three casks of cartridges into the square, and we were all comfortable.

The best cavalry is contemptible to a steady and well-supplied infantry regiment: even our men saw this, and began to pity the useless perseverance of their assailants, and, as they advanced, would growl out, "Here come these fools again!" One of their superior officers tried a *ruse de guerre*,<sup>6</sup> by advancing and dropping his sword as though he surrendered; some of us were deceived by him, but Halkett ordered the men to fire, and he coolly retired saluting us.

Their devotion was invincible. One officer whom we had taken prisoner was asked what force Napoleon might have in the field, and replied with a smile of mingled derision and threatening, "Vous verrez bientôt sa force, messieurs."<sup>7</sup> A private cuirassier was wounded and dragged into the square; his only cry was, "Tuez donc,—tuez, tuez moi, soldats!"<sup>8</sup> and as one of our men dropped dead close to him, he seized his bayonet and forced it into his own neck.

Though we constantly thrashed our steel-clad opponents, we found more troublesome customers in the round shot and grape, which all this time played on us with terrible effect, and fully avenged the cuirassiers.

Often as the volleys created openings in our square would the cavalry dash on ; but they were uniformly unsuccessful. A regiment on our right seemed sadly disconcerted, and at one moment was in considerable confusion. Halkett rode out to them, and seizing their colour, waved it over his head and restored them to something like order, though not before his horse was shot under him. At the height of their unsteadiness we got the order to "right face," to move to their assistance ; some of the men mistook it for "right about face," and faced accordingly, when old Major M'Laine, 73rd, called out, "No, my boys, it's 'right face' ; you'll never hear the right about as long as a French bayonet is in front of you !" In a few minutes he was mortally wounded.

A regiment of light dragoons,—by their facings<sup>9</sup> either the 16th or 23rd—came up to our left and charged the cuirassiers. We cheered each other as they passed us : they did all they could, but were obliged to retire after a few minutes at the sabre.

A body of Belgian cavalry advanced for the same purpose ; but on passing our square they stopped short.

Our noble Halkett rode out to them and offered to charge at their head ; it was of no use : the Prince of Orange came up and exhorted them to do their duty, but in vain.

They hesitated till a few shots whizzed through them, when they turned about, and galloped like fury, or rather, like fear. As they passed the right face of our square the men, irritated by their rascally conduct, unanimously took up their pieces and fired a volley into them, and "many a good fellow was destroyed so cowardly."

The enemy's cavalry were by this time nearly disposed of, and as they had discovered the inutility of their charges, they commenced annoying us by a spirited and well-directed carbine fire.

While we were employed in this manner it was impossible to see farther than the columns on our right and left ;

but I imagine most of the army were similarly situated : all the British and Germans were doing their duty.

About six o'clock I perceived some artillery trotting up our hill, which I knew by their caps to belong to the Imperial Guard.

I had hardly mentioned this to a brother officer, when two guns unlimbered within seventy paces of us, and by their first discharge of grape blew seven men into the centre of the square.

They immediately reloaded, and kept up a constant and destructive fire. It was noble to see our fellows fill up the gaps after every discharge.

I was much distressed at this moment ; having ordered up three of my light bobs, they had hardly taken their station when two of them fell, horribly lacerated.

One of them looked up in my face and uttered a sort of reproachful groan, and I involuntarily exclaimed, "I couldn't help it."

We would willingly have charged these guns, but, had we deployed,<sup>10</sup> the cavalry that flanked them would have made an example of us.

The "*vivida vis animi*"<sup>11</sup>—the glow which fires one upon entering into action—had ceased ; it was now to be seen which side had most bottom and would stand killing longest.

The Duke visited us frequently at this momentous period ; he was coolness personified.

As he crossed the rear face of our square a shell fell amongst our grenadiers, and he checked his horse to see its effect. Some men were blown to pieces by the explosion, and he merely stirred the rein of his charger, apparently as little concerned at their fate as at his own danger.

No leader ever possessed so fully the confidence of his soldiery : wherever he appeared, a murmur of "Silence—stand to your front—here's the Duke," was heard through the column, and then all was steady as on parade. His

aides-de-camp,<sup>12</sup> Colonels Canning and Gordon, fell near our square, and the former died within it.

As he came near us late in the evening, Halkett rode out to him and represented our weak state, begging his Grace to afford us a little support. "It's impossible, Halkett," said he.

And our general replied, "If so, sir, you may depend on the brigade to a man."

<sup>1</sup> **Hougoumont.**—A chateau or country seat on the right of the British position held by our Grenadier Guards. It was an old red brick building in the midst of orchards and gardens, and formed the key of the British position.

<sup>2</sup> **Cuirassiers.**—Horsemen armed with a *cuirass* or steel waistcoat.

<sup>3</sup> **The step.**—Promotion to the next step in the regiment.

<sup>4</sup> **Herculean.**—Gigantic. [*Hercules*, the most celebrated hero of ancient times, but of course a fabulous personage. Even in his cradle the infant Hercules strangled two enormous serpents.]

<sup>5</sup> **Visor.**—A part of the helmet to pro-

tect the face, with an opening to look through.

<sup>6</sup> **Ruse de guerre.**—Stratagem of war.

<sup>7</sup> **Vous verrez . . . messieurs.**—You will soon see his forces, gentlemen.

<sup>8</sup> **Tuez . . . soldats.**—Kill me, kill me, soldiers!

<sup>9</sup> **Their facings.**—The trimmings on their uniform.

<sup>10</sup> **Deploy.**—To open out, to extend in line.

<sup>11</sup> **Vivida vis animi.**—Animated vigour of spirits.

<sup>12</sup> **Aide-de-camp.**—A military officer who conveys the general's orders.

## WATERLOO.

THAT morn's o'erclouded sun  
 Heard the wild shout of fight begun  
 Ere he attained his height,  
 And through the war-smoke, volumed<sup>1</sup> high,  
 Still peals that unremitted<sup>2</sup> cry,  
 Though now he stoops<sup>3</sup> to night.  
 For ten long hours of doubt and dread,  
 Fresh succours from the extended head  
 Of either hill<sup>4</sup> the contest fed:  
 Still down the hill they drew,  
 The charge of columns paused not,  
 Nor ceased the storm of shell and shot;  
 For all that war could do  
 Of skill and force was proved that day,  
 And turned not yet the doubtful fray

\* \* \* \*

On bloody Waterloo  
 "On! On!" was still the stern exclaim;  
 "Confront the battery's jaws of flame!"



Rush on the levell'd gun !  
My steel-clad cuirassiers<sup>a</sup> advance !  
Each Uhlan<sup>b</sup> forward with his lance,  
My Guard—my Chosen—charge for France,  
France and Napoleon !”

Loud answered their acclaiming shout,  
Greeting the mandate which sent out  
Their bravest and their best to dare  
The fate their leader shunned to share.  
But He, his country's sword and shield,  
Still in the battle-front revealed,  
Where danger fiercest swept the field,  
Came like a beam of light,  
In action prompt, in sentence brief—  
“Soldiers,<sup>c</sup> stand firm,” exclaimed the Chief ;  
“England shall tell the fight !”

On came the whirlwind—like the last  
But fiercest sweep of tempest-blast—  
On came the whirlwind—steel-gleams broke  
Like lightning through the rolling smoke ;  
The war was waked anew,  
Three hundred cannon-mouths roared loud,  
And from their throats, with flash and cloud,  
Their showers of iron threw.  
Beneath their fire, in full career,  
Rushed on the ponderous cuirassier,  
The lancer couched his ruthless spear,  
And hurrying as to havoc near,  
The cohorts' eagles<sup>d</sup> flew.  
In one dark torrent, broad and strong,  
The advancing onset rolled along,  
Forth harbingered<sup>e</sup> by fierce acclaim,  
That from the shroud of smoke and flame,  
Pealed wildly the imperial name.

But on the British heart were lost  
The terrors of the charging host ;  
For not an eye the storm that viewed  
Changed its proud glance of fortitude,  
Nor was one forward footstep staid,  
As dropped the dying and the dead.  
Fast as their ranks the thunders tear,  
Fast they renewed each serried<sup>f</sup> square ;

And on the wounded and the slain  
Closed their diminished files again,  
Till from their line scarce spears' lengths three,  
Emerging from the smoke they see  
Helm, and plume, and panoply,<sup>11</sup>

Then waked their fire at once !  
Each musketeer's revolving knell,  
As fast, as regularly fell,  
As when they practise to display  
Their discipline on festal day.

Then down went helm and lance,  
Down were the eagle banners sent,  
Down reeling steeds and riders went,  
Corslets<sup>12</sup> were pierced, and pennons<sup>13</sup> rent ;  
And, to augment the fray,<sup>14</sup>  
Wheeled full against their staggering flanks,  
The English horsemen's foaming ranks  
Forced their resistless way.

Then to the musket-knell succeeds  
The clash of swords, the neigh of steeds,  
As plies<sup>15</sup> the smith his clanging trade,  
Against the cuirass rang the blade ;  
And while amid their close array  
The well-served cannon rent their way,  
And while amid their scattered band  
Raged the fierce rider's bloody brand,<sup>16</sup>  
Recoiled in common rout and fear,  
Lancer, and guard, and cuirassier,  
Horsemen and foot—a mingled host,  
Their leaders fallen, their standards lost.

SIR WALTER SCOTT.

<sup>1</sup> **Volumed.**—Riding in volumes or columns.

<sup>2</sup> **Unremitting cry.**—The never-ceasing war-shout.

<sup>3</sup> **He stops, etc.**—The sun begins to go down.

<sup>4</sup> **Of either hill.**—The troops on each side were drawn up on the long ridge of a low hill.

<sup>5</sup> **Cuirassiers.**—Soldiers wearing a cuirass—a kind of steel waistcoat ; it was originally of leather [Fr. *cuir*, leather].

<sup>6</sup> **Uhlan.**—Light-cavalry soldiers—employed chiefly as scouts.

<sup>7</sup> **Soldiers, etc.**—Riding up to the 95th, which was hard pressed, the Duke said,—"Stand fast, 95th : what will they say in England !"

<sup>8</sup> **Cohort's eagles.**—A *cohort* was a name given by the Romans to the tenth

part of a legion—about 500 men. The eagles are the French standards or flags, each bearing the figure of an eagle.

<sup>9</sup> **Harbingered, etc.**—Heralded, or previous notice being given, by wild fierce shouts.

<sup>10</sup> **Serried square.**—A compact block of soldiers [Fr. *serrier*, to crowd].

<sup>11</sup> **Panoply.**—Complete armour.

<sup>12</sup> **Corslet.**—Same as cuirass (*vide* § above). **Pennon,** a small pointed flag at the end of a lance.

<sup>13</sup> **Augment the fray.**—To increase the fearful conflict.

<sup>14</sup> **As plies, etc.**—A soldier who was present compared the noise of the swordsmen to "a thousand tinkers at work, mending pots and kettles."

<sup>15</sup> **Brand.**—The flashing sword, being bright like a firebrand.



**SEA ANEMONES.**

THE spectator at an Aquarium<sup>1</sup> witnesses many pretty and curious sights, but none so pretty as the marine<sup>2</sup> flower-bed, in the tank where the sea anemones are kept. These charming and timid creatures are also called *Actinia*—a name indicating their disposition to form rays or stars.

These creatures are cylindrical in shape, and are provided with numerous arms, called tentacles, arranged with great regularity in a circular form around a central mouth. These tentacles are sometimes decorated with brilliant colours, and they consist of tubes having an orifice<sup>3</sup> at their extremities, through which water is drawn in and discharged. The mouth opens among the tentacles, and communicates by means of a short tube with a stomach, broad and short.

Anemones feed on shrimps, small crabs, whelks, and probably on all animals brought within their reach whose strength or agility is insufficient to extricate them from the grasp of the numerous tentacles; for as these organs can be turned about in any direction, and greatly lengthened, they are capable of being applied to every point, and adhere by suction<sup>4</sup> with considerable tenacity. The size of the prey is frequently almost equal in bulk to the captor itself. Most anemones are voracious, and full of energy; nothing escapes their gluttony; but with all the power of their tentacles to seize and their mouth to swallow, their stomach is not always able to retain. In some cases the victim contrives to escape when vomited from the overcharged stomach, and in other cases it is adroitly<sup>5</sup> snatched away, not merely out of the mouth of the anemone, but even from its stomach, by some neighbouring marauder more cunning and more active than itself.

It is sometimes observed in aquariums that a shrimp, which at a distance has seen the prey devoured, will throw himself upon the anemone, and audaciously wrest the prey

from its grasp. Even when the savoury morsel has been swallowed, the shrimp, by great exertions, succeeds in extracting it from the anemone's stomach. Sometimes the conflict is attended with unpleasant consequences to the aggressor. When the anemone is strong and robust, the attack is not only repelled, but the shrimp runs the risk of being entangled in the tentacles, and devoured at a gulp.

The sea anemones pass nearly all their life fixed to some rock to which they seem to take root. There they live a sort of unconscious<sup>6</sup> existence, more like a plant than an animal; but are capable, nevertheless, of certain voluntary movements, and even of motion through the water. They are not even conscious of the prey in their vicinity until it is actually in contact, and then they seize their victims with avidity. This habit may be easily observed in any aquarium, and is a source of amusement to the spectator. Let some morsels of food be thrown into the compartment of an aquarium containing anemones, prawns, and shrimps. These active creatures chase the morsels of food as they sink to the bottom of the basin; but it is otherwise with the anemones: the morsels glide down within the twentieth part of an inch of their crown without their presence being suspected. But should the food actually touch any part of the creature, it is immediately seized by the tentacles and carried to the mouth. The term *Zoophyte* (animal-plant) has in consequence been applied to these and similar creatures.

<sup>1</sup> **Aquarium.**—A place for the exhibition of fishes and other creatures living in water [*L. aqua*, water].

<sup>2</sup> **Marine flower-bed.**—The anemones look like flowers in the *sea* [*L. mare*, the sea].

<sup>3</sup> **Orifice.**—An opening.

<sup>4</sup> **Adhere by suction.**—Like a stone will adhere, or stick, to a boy's sucker.

<sup>5</sup> **Adroitly.**—Cleverly, dexterously, as if done with the right hand [*Fr. adroit*, right].

<sup>6</sup> **Unconscious existence.**—A life spent without a thought of being alive, or of doing anything to keep alive.

## MORNING IN AUSTRALIA.

A SINGLE event,<sup>1</sup> a thousand times weightier to the world each time it comes than if with one fell<sup>2</sup> stroke all the kingdoms of the globe became republics and all the republics empires, so to remain a thousand years. An event a hundred times more beautiful than any other thing the eye can hope to see while in the flesh, yet it regaled the other senses too, and blessed the universal heart.

Before this prodigious event, came its little heralds sweeping across the face of night. First came a little motion of cold air—it was dead still before; then an undefinable freshness; then a very slight but rather grateful smell from the soil of the conscious earth. Next twittered from the bush one little hesitating chirp.

*Craake!* went the lugubrious quail,<sup>3</sup> pooh-poohing the suggestion. Then somehow rocks and forests and tents seemed less indistinct in shape; outlines peeped where masses had been.

*Jug! jug!* went a bird with a sweet gurgle in his deep throat. *Craake!* went the ill-omened one directly, disputing the last inch of nature. But a gay thrush took up the brighter view: *Otock, tock, tock! o twee o o! o twee o o! o chio chee! o chio chee!* sang the thrush, with a decision as well as a melody that seemed to say, "Ah, but I am sure of it; I am sure, I am sure; wake up: joy! joy!"

From that moment there was no more *craake*: the lugubrious quail shut up in despair, perhaps in disdain, and out gurgled another *jug! jug! jug!* as sweet a chuckle as Nature's sweet voice ever uttered in any land; and with that a mist like a white sheet came to light, but only for a moment, for it dared not stay to be inspected,—“I know who is coming, I'm off,”—and away it crept off close to the ground—and little drops of dew peeped sparkling in the frost-powdered grass.

*Yock ! yock ! O chio faliera po ! Otock otock tock ! o chio chee ! o chio chee !*

*Fug ! jug ! jug ! jug !*

*Off we go ! off we go !*

And now a thin red streak came into the sky, and perfume burst from the bushes, and the woods rang, not only with songs—some shrill, some as sweet as honey—but with a grotesque yet beautiful electric merriment of birds, that can only be heard in this land of wonders. The pen can give but a shadow of the drollery of the sweet merry rogues that hailed the smiling morn. Ten thousand of them, each with half a dozen songs, besides chattering and talking, and imitating the fiddle, the fife, and the trombone.

*Niel gow ! niel gow ! niel gow !* whined a leatherhead.<sup>4</sup> *Take care o' my hat !* cried a thrush in a soft melancholy voice ; then with frightful harshness and severity, *Where is your bacca-box ! your box ! your box !* then, before any one could answer—in a tone that said, Little care I where the box is, or anything else—*gyroc de doc ! gyroc de doc ! roc de doc ! cheboc cheboc !* Then came a tremendous cackle ending with an obstreperous *hoo ! hoo ! ha !* from the laughing jackass,<sup>5</sup> who had caught sight of the red streak in the sky—harbinger, like himself, of morn ; and the piping crows or whistling magpies modulating and humming and chanting, not like birds, but like practised musicians with rich baritone voices, and the next moment creaking just for all the world like Punch, or barking like a pug dog. And the honey thrush, with its sweet and mellow tune : nothing in an English wood so honey sweet as his *Otock otock tock ! o tuee o o ! o tuee o o ! o chio chee ! o chio chee !*

But the leatherheads beat all. *Neil gow ! neil gow ! neil gow ! Off we go ! off we go ! off we go !* followed by rapid conversations, the words unintelligible but perfectly articulate,<sup>6</sup> and interspersed with the oddest chuckles—plans of pleasure for the day, no doubt. Then *ri tiddle tiddle tiddle*.

*tiddle tiddle tiddle tiddle* ! playing a thing like a fiddle with wires ; then "*off we go*" again, and *bow ! wow ! wow ! jug ! jug ! jug ! jug !* and the whole lot in exuberant spirits—such extravagances of drollery, such rollicking jollity, evidently splitting their sides with fun, and not able to contain themselves for it.

When all this drollery and wild fun and joy and absurdity were at their maddest, and a thousand feathered fountains bubbling song were at their highest, then came the cause of all the merry hubbub : the pinnacles of rock glowed like burnished gold ; Nature, that had crept from gloom to pallor, burst from pallor to light and life and burning colour ; the great sun's forehead came with one gallant stride into the sky—and it was day !—[From *It is Never Too Late to Mend*, a most interesting novel by Charles Reade.]

\* **A single event.**—Sunrise.

\* **Fell stroke.**—Cruel blow.

\* **Lugubrious quail.**—A bird with a very melancholy note.

\* **The leatherhead.**—Its strange cry has been supposed to resemble

soldier," "Pimlico," and "Four o'clock."

\* **Laughing jackass, or Settler's Clock.**—Its boisterous cry is said to be like "a chorus of wild spirits."

\* **Articulate.**—Having the distinct sound of words.

## A BUNCH OF SWEETS.

'TIS sweet to hear,  
At midnight on the blue and moonlit deep,  
The song and oar of Adria's gondolier,  
By distance mellowed, o'er the waters sweep ;  
'Tis sweet to see the evening star appear ;  
'Tis sweet to listen as the night-winds creep  
From leaf to leaf ; 'tis sweet to view on high  
The rainbow, based on ocean, span the sky.

'Tis sweet to hear the watch-dog's honest bark  
Bay deep-mouthed welcome as we draw near home ;  
'Tis sweet to know there is an eye will mark  
Our coming, and look brighter when we come ;  
'Tis sweet to be awaken'd by the lark,  
Or lulled by falling waters ; sweet the hum  
Of bees, the voice of girls, the song of birds,  
The lisp of children, and their earliest words.



**THE ENTOMBED MINERS.**

AMONG the deeds of heroism recorded in the pages of history, few are worthier to live in the memory of mankind than the noble rescue of the Welsh miners, who for ten days were entombed in the Troedyrhiw coal pit, near Pontypridd.

It was on Wednesday, the 11th of April, 1877, just as the day-shift colliers were quitting the pit, when the catastrophe occurred. Some last incautious blow, some accidental breach of wall or vein, burst the thin partition holding away from the "workings" a vast concealed reservoir of subterranean water. Filling the lower galleries and the bottom of the shafts, and driving before it the atmosphere from every part of the pit, this mysterious deluge cut off the retreat of fourteen men and lads. Four of these were overtaken by the waters and drowned, but the remaining ten, in two equal parties, fled before the rush of air and water, and escaped from the peril of drowning only to find themselves immured in the bowels of the earth, without any prospect of ever again seeing the light of the sun.

The position of the unfortunate fellows was hopelessly terrible; and its desperateness must have been intensified by three terrors. First, the terror of the water; for if that frightful flood did not cease to rise, they must perish more cruelly, because more slowly, than if they had been overtaken by the original rush. Then, when they understood that the water was kept at bay<sup>1</sup> by the compressed air of their dungeon, they had reason to dread suffocation in such a close-stuffed and limited supply of air as had been pressed into their grimy grave. Above all was the horror of starvation, for they had only a few candles to serve the double purpose of light and food.

**THE FIRST RESCUE.**

When the miners who had escaped mustered above the

pit's mouth, it was soon discovered that fourteen were missing. Measures were immediately taken to ascertain if any of them had escaped, and if so, to attempt their rescue. Ere long the friends of the unfortunate men were groping about the watery galleries for a sign of life, when the faint echo of the picks of the captives was heard through the rock. The work of deliverance immediately began. Hour after hour the good fellows of Ferndale Valley worked at this new "drive" as men never worked at coal-picking before. Gang succeeded gang; night and day the noble toil went on, the blows from within answering feebly to the thick and heavy strokes from without, until the wall of coal was thinned to a foot of stuff, and through this one of the imprisoned men, William Morgan, suddenly drove his mandril. But it was at the expense of his life. The pent-up atmosphere, exploding with the force of a gigantic air-gun,<sup>2</sup> and with "the roar of a thousand lions," dashed rock and coal into the faces of the rescuing gang, stunning one or two and covering them with blood and grime; while young Morgan was actually killed by the violence with which his body was dashed into the chasm. "The moment a hole was made in the coal," says one of the party, "the trigger, as it were, of the air-gun was pulled, and the unfortunate man who was in the opening was shot out like a bullet." It is a wonder others were not killed; however, the rest were saved, and they proved to be the poor man's father and brother and two others.

The account they gave of themselves was, that they were going leisurely towards the shaft, when they heard the rush of waters and fled. They soon, however, heard another torrent coming in another direction, but succeeded in finding the cavern which had afforded them shelter. They gave themselves up for lost, and took, as they thought, an eternal farewell of each other, after which they sang a well-known hymn in Welsh, frequently heard on the hills of Wales. *The following is a translation:—*

In the deep and mighty waters  
There is none to hold my head  
But my only Saviour, Jesus,  
Who was slaughtered in my stead.  
Hè, a Friend in Jordan's river,  
Holding up my sinking head,  
With His smile I'll go rejoicing  
Through the regions of the dead,

It appears they were singing this when the welcome tapplings of the explorers were heard; "and," said Thomas Morgan, "off went our jackets, and my beloved son, who is no more, worked all night with the energy of a lion. He has passed the Jordan river, and is to-day on the holy hill of the better land."

#### THE SECOND RESCUE.

The question now arose—what had become of the other nine? (Four, as we have said, were at that moment dead, but another party of five were still alive.) The walls are anxiously struck here and there, the miners shout and listen with ears close pressed to the black crags of coal, and once again the faint beat is heard of a distant blow upon the walls of the mine. Thirty-eight yards of coal and rock separate them from their buried comrades, but the faint echo of life which has reached them fills their hearts with dauntless resolution. There were still living men behind that barrier, and so the battle to rescue them began—all the manhood of the district volunteering for the work.

Toiling by fours in the dark and cramped place, the strongest hands strove like Titans<sup>8</sup> at the business. Steaming with sweat, their wrists and fingers bloody with the labour, driving, riving, raining blows on the cruel wall, one gang would hardly be allowed time to crawl breathless from the passage before another brave detachment rushed at the task. It is said that grim old pitmen shed tears of pride to see these Welshmen working; for never since coal was dug

was anything like it witnessed. Yard by yard, and fathom by fathom, day and night incessantly, splendidly hewing, they hacked that passage, bringing the coal and stone down by tons, and thinking of the mothers, wives, and children who were weeping and praying above ground in an agony of impatience.

It was Sunday afternoon, after the men had been entombed for four days and nights, that the sound was heard which indicated that a second party was still alive. After the work of deliverance had been going on from Sunday to the evening of Wednesday, the gratifying intelligence was brought from below that one of the imprisoned men had been heard shouting to those at work, "Keep to the right; you are nearly through." A loud shout of congratulation was raised by the band of heroic workers. Four or five yards had yet to be hewed through, but coal being a good conductor of sound, the captives could make themselves understood. They were asked by a miner, shouting at the top of his voice, "How many are you?" The reply was "Five." "How have you lived?" "By eating candles. Do make haste." It was as if the living hailed the dead, and got back an answer from the tomb.

But now arose great fear and perplexity among the rescuers, derived from their first experience. As one of the workmen said to a reporter, "If people knew the awful storm that followed when poor William Morgan struck through with his mandril, they would not be surprised at our hesitation: it was as if the end of the world had come." Wise heads were at work as well as strong hands; while the latter continued at their task, the former devised means for lessening the danger from the first rush of air. At about one o'clock on Thursday afternoon a hole was cautiously bored through the wall. It was a moment of terrible suspense, and it required heroic fortitude to enable the men engaged in the task of deliverance to remain crouched in a hole 6 ft. wide by 3 ft. in height, while the long-pent-up

air was rushing through the opening, and discordant noises, like claps of thunder, went rolling through the mine. It was, moreover, feared that the moment the air was liberated, the immense volume of water in the workings would advance upon the imprisoned men, and carry before it the solid pillar of coal intervening. Happily the rush, though terrific, was much less than had been anticipated.

For some time it was found impossible to speak to the poor prisoners, owing to the blast rushing through the hole made. At length a voice was heard at the other end of the bore. It was asked, "Who are you?" The reply was received, "I am George Jenkins." "How many are you?" He answered "Five; two of us are very ill." "Have you light?" He said, "No; have been in darkness nearly all the time." "Can you cut down any coal on your side?" "No; we are too weak; we are starving; oh, make haste!" Meanwhile, a tube was brought to be inserted in the hole, and an attempt was made to inject through it warm diluted milk; but it was afterwards found that it never reached the men.

The work of deliverance seemed now on the eve of completion, when a rush of gas<sup>4</sup> made it necessary to suspend operations. Meanwhile, the captives were in danger of being drowned, from the water rising in their dungeon as the air escaped through the hole; but they stopped up the hole with coal, and climbed to a ledge above the water. Means having been taken to ventilate the passage, the men resumed their task. One of that noble band, Abraham Todd, gives the following account of the rescue. "About one o'clock" (Friday afternoon), "I should think it was, when we drove the hole through. All along we could hear George Jenkins calling to us, 'Take plenty of time; and be careful!' Isaac Pride, one of our party, was the first who tried to go through the hole, but he was too big. And so I went in. I called out, 'George, George, I am coming to you!' 'All right,' he replied; 'come on, my dear; I have given you up this long

time. Then I jumped through, caught him in my arms, and he caught me round the neck and kissed me."

The news soon spreads that a way of escape has been opened up, and a vast crowd collects round the mouth of the shaft in eager expectation and fearful suspense. The bell rings, and in a few seconds the cage will appear. Two or three seconds of intense anxiety and pain, and then the first of the entombed colliers, the boy David Hughes, is borne past on a stretcher to the temporary hospital. A deep sigh of thankfulness escapes from thousands of anxious spectators; and then, as quickly as they can be brought to the surface, the four remaining men are carried by, and placed under the care of medical men and a staff of careful nurses.

By a happy coincidence, when the last man was brought up, and was on his way to the hospital, a telegraphic message was received from the Queen. One of the officers of the mine mounted a waggon, and with a loud voice said, "A message from the Queen.\*" There was a rush of people forward, and all present having uncovered, it was read as follows:—

"The Queen is very anxious for the last accounts of the poor men in the mine. Are they saved? Pray telegraph."

The poor fellows were much touched at the Queen's anxiety on their account. "We little thought," said one of them, "when we were in our prison below, that the Queen of England was interesting herself in our behalf." And to a photographer who wished to take their likeness, they replied: "We don't wish to be photographed in hospital, as we want our dear Queen, who has sent to us, to have our likenesses in our colliers' dress when we are better, and no one shall have it before."

May all who read the story of the Welsh miners learn from their example to bear suffering in patient hopefulness, and be ready to risk life and limb on behalf of their brother men.

' *Kept at bay, etc.*—The water was kept back by the air which had been driven by the rush of waters from all parts of the mine into the corner where the miners had fled. So much air had been driven into a small space that it was strong enough to keep the water out. If you plunge a tumbler into water with its mouth downwards, you will find the air in the tumbler will keep the water out of the glass except near its edge.

' *Air-gun.*—A gun which is set off means of compressed air instead of powder.

' *Titania.*—Fabled giants.

' *Gas.*—A gas escapes from coal, & being dug, to which the miners give name of *fire-damp*. It explodes with terrible violence on coming into contact with a naked light. Hence the mine use a lamp called the *safety-lamp*, which is so constructed as to prevent the risk from setting fire to the *fire-damp* beside the lamp. It was invented by Humphrey Davy.

## HOME.

THERE is a land, of every land the pride,  
Beloved by Heaven o'er all the world beside ;  
Where brighter suns dispense serener light,  
And milder moons emparadise the night ;  
A land of beauty, virtue, valour, truth,  
Time-tutored age, and love-exalted youth :  
The wandering mariner, whose eye explores  
The wealthiest isles, the most enchanting shores,  
Views not a realm so bountiful and fair,  
Nor breathes the spirit of a purer air ;  
In every clime the magnet of his soul,  
Touched by remembrance, trembles to that pole ;  
For in this land of Heaven's peculiar grace,  
The heritage of nature's noblest race,  
There is a spot on earth supremely blest,  
A dearer, sweeter spot than all the rest,  
Where man, creation's tyrant, casts aside  
His sword and sceptre, pageantry and pride,  
While in his softened looks benignly blend  
The sire, the son, the husband, brother, friend :  
Here woman reigns ; the mother, daughter, wife,  
Strew with fresh flowers the narrow way of life !  
In the clear heaven of her delightful eye  
An angel-guard of loves and graces lie ;  
Around her knee domestic duties meet,  
And fireside pleasures gambol at her feet.  
Where shall that land, that spot of earth be found ?  
Art thou a man ?—a patriot ?—look around ;  
O, thou shalt find, howe'er thy footsteps roam,  
That land thy country, and that spot thy Home.

JAMES MONTGOMERY..

**EASY LESSONS IN CHEMISTRY.****I. THE ELEMENTS.**

IN olden times it was the opinion of the wise that there were four elements,—earth, fire, water, and air. By an “element” is meant one of those simple substances by the union of which other more complex substances are formed. To take a few simple examples, the twenty-six letters of the alphabet may be termed the elements of literature; addition, subtraction, multiplication, and division may be called the elementary rules of arithmetic; and flour, sugar, currants, raisins, suet, eggs, milk, lemon-peel, and salt may be regarded as the elements of a plum-pudding.

But we now know that our forefathers were greatly mistaken about their four “elements.” We have discovered that earth, water, and air are *compound* substances, that fire is an *action* rather than a substance, and that instead of four there are upwards of sixty elements, out of which all the substances this world contains are formed. Some of these elements are so exceeding rare as to be of higher value than diamonds; some are extremely abundant; but very few of them (and they rarely) are to be found naturally in a free state—that is, free from combination with other elements.

The science which will tell you what is known about these elements and their many combinations is called Chemistry, and you may easily imagine that it is a science of very great extent. We intend to give you only a few lessons on it, and we cannot therefore pretend to give you anything like a full account of it. We shall content ourselves with taking a few substances which are met with in common life; and by talking with you a little about these, we hope to interest you in the science, and to encourage you to read further for yourselves in some other book.



But first of all we think it will be well to give a list of the *chief* elements—viz., of nineteen metals and nine non-metallic elements.

The nine non-metals are oxygen, hydrogen, nitrogen, chlorine, carbon, sulphur, iodine, phosphorus, silicon.

The nineteen metals are potassium, sodium, calcium, magnesium, aluminium, zinc, manganese, nickel, arsenic, iron, tin, antimony, lead, bismuth, mercury, copper, silver, gold, platinum.

All these, and others which we forbear to mention, are elementary substances; which means that all efforts to separate them into simpler elements have utterly failed, and we have therefore a right to believe that these are themselves the elementary substances out of which various combinations are formed.

You will therefore now see in what a useless pursuit these old alchemists had engaged, who spent weary hours in trying to find out how they might convert lead, or some of the other baser metals, into gold. They might as well have laboured to prove that  $x$  was  $z$ , or that  $2$  was  $3$ .

Occasionally an element is met with in the free state, and perfectly pure, but in general they are found impure or *mingled* with other substances, or in *combination*: for example, oxygen and nitrogen are mingled together in the proportion of 1 to 4 in the air we breathe; calcium, carbon, and oxygen, combine together to form chalk and marble; magnesium, sulphur, and oxygen are found in combination in a certain spring of water in Surrey, and when extracted the compound is known as Epsom salts. But occasionally an element is met with pure: diamonds are pure carbon,—gold is found both in nuggets and in fine grains known as gold dust,—and mercury is commonly found in some parts in the free state; and quite pure.

It may be interesting to mention here that the precious metal gold, though seldom found in large quantities, is one of the most widely-spread of all metals, in very minute

quantities, and in combination ; so that scarcely any delicate examination can be made without some slight trace of gold being found.

It may be easily imagined that the combinations of which these elements are capable are so various and so numerous that the complete study of them would be a great work. Indeed, new combinations are occasionally discovered in Nature, or invented by the ingenuity of man ; and sometimes even a new element is discovered, the existence of which had not previously been suspected. Thus, although soda had long been commonly known and used, it was not for a long time discovered that it was a combination of a metal, sodium, with a gas, oxygen ; so that although sodium had long been used *in combination*, its existence as an *element* is a discovery of modern times. The science of chemistry is therefore a constantly growing one, and will probably never be *completed* so long as the world lasts.

Great care should be taken to distinguish between a *chemical combination* and a *mere mingling* of elements. The air we breathe, for example, is a *mixture* of two gases, oxygen and nitrogen,—oxygen being the active element, and four times as much nitrogen being used to dilute the oxygen (so to speak), just as water is mixed with strong brandy to dilute it. Sugar dissolved in water or tea affords another example of a *mixture*. Such, then, are mixtures ; the substances mingled preserve their character, and the mixture partakes of the nature of the elements.

Not so a chemical combination. In this the elements lose their individual character, and the combination may possess quite different properties. Mercury (quicksilver) is a bright, liquid metal ; sulphur is a yellow inflammable solid ; let these be rubbed intimately together, and you have nothing more than a *mixture*. Heat this mixture, and a change at once begins to take place, for the two elements now *combine* to form a red solid used in painting, and called vermilion.

Some substances combine very readily, others very un-

willingly, and others (so far as we know) will not combine at all. If you were to place a sovereign out of doors where it would be exposed to the air and weather, it would merely in time get tarnished and dirty. Do the same with an iron nail, and it rusts rapidly, becoming in a short time quite brittle and useless. Now this rusting is nothing else than combining with oxygen, and thus you see that whereas iron has a considerable affinity for oxygen, gold has scarcely any at all. On the other hand, the metal potassium has such an affinity for oxygen that the only way to preserve the metal is to keep it from all contact with oxygen, either by sinking it in a liquid called naphtha (which contains no oxygen), or by carefully sealing it up in glass tubes.

Elements may be often induced either to combine or to separate themselves by the assistance of heat. What we said about vermilion supplies an illustration of this, and other examples will be given in future lessons.

## II. CARBON.

The element carbon is a combustible solid, and is to be found in great abundance in Nature in very various and remarkable forms,—sometimes free, but chiefly in combination.

First, it is found free (that is, uncombined) in the form of diamonds and graphite. Charcoal is another free form of this element. These three substances, though so different in weight, appearance, and other properties, may nevertheless be easily shown to be the same chemical substance, for if equal weights of each of them be burned in air or oxygen, the result is in each case the same,—that is, the carbon combines with the oxygen, and there is produced a certain quantity (viz., by weight nearly four times the original carbon) of carbonic acid gas.

The diamond is the *purest* form of carbon; the other two substances, when burned, leave a small residue of foreign matter. When strongly heated, but not inflamed, the dia-

mond will soften and swell, and become something like a cinder.

Graphite, otherwise called plumbago or blacklead, is found in Cumberland and other parts in a more or less pure state. The purest is of course the best ; the coarser kinds have to be cleansed and purified before much use can be made of them. It is used for blacklead pencils, for polishing fire-grates, etc., and for several other purposes.

Charcoal can be most easily obtained by heating wood in a nearly closed vessel. It *appears* a very light substance, but this is owing to its spongy nature : when powdered, it occupies much less room. It is a great preventive of decay. Thus gateposts are often charred at the end before they are placed in the ground, and the coat of carbon thus formed prevents the heart of the wood from rotting for a long time, and thus makes the posts last longer. For the same reason, if the inside of a cask be charred, water may be kept in it perfectly sweet for a long time. In many water-filters, again, the water is passed through charcoal, which cleanses and purifies it. So also meat packed in charcoal is preserved from putrefaction. So again a piece of meat which smells slightly tainted when put down to roast will not smell at all when brought to table, for the cooking has slightly charred the outside, and has thus sweetened it.

Charcoal, moreover, has the power of absorbing gases, and is therefore very valuable for removing unpleasant odours.

Secondly, carbon forms, in combination with oxygen, a small proportion of the air we breathe. This combination is a heavy poisonous gas, named *carbonic acid*, and there will be about one part of it to every 3000 parts of air. This seems, and is, a very small *proportion* ; but when it is remembered what an enormous quantity of air encircles this world, it will be easily imagined that the quantity of carbonic acid must also be great,—in fact, it probably amounts in weight to about three billions of tons,—and if from this we

could extract the element carbon, we should have of it about eight hundred thousand millions of tons.

This small proportion of carbonic acid gas supplies food to plants; for plants absorb the air, retain the carbon, and set free the oxygen, thus purifying the air. Animals, on the contrary, breathe *in* the pure air, and breathe *out* air mingled with carbonic acid. This is the reason why the air in a room where many people are assembled, soon becomes foul and impure and injurious; and for the same reason it is very important that rooms should be well ventilated—that is, supplied with fresh, pure air.

We have already said that carbonic acid gas is *heavy*; if, therefore, it chanced to be formed in a mine (a case which sometimes happens), it finds great difficulty in escaping upwards, and any one venturing down into it would lose his life. When it occurs thus, it is known by the name of *choke-damp*.

Carbonic acid gas is formed whenever carbon is burned in plenty of air or oxygen. When the supply of air is small, another gas, more poisonous still, is formed, called carbonic oxide, which also consists of carbon and oxygen, but not combined in the same proportions as in carbonic acid. There have been instances known of persons who have lighted a charcoal fire in a room which had little or no ventilation, have fallen asleep, and have never waked again,—these two poisonous gases having caused their death.

Thirdly, carbon is found in combination with oxygen and the metal calcium in very great abundance in all parts of the world, and in different forms—as chalk, limestone, shells, coral, marble, etc.

Limestone is so abundant that many of our streets are paved with it, and many buildings are constructed of it: lime is manufactured from it.

Whole ranges of hills in England and elsewhere are formed of chalk: the white cliffs of Albion are celebrated in song and story.

In the Pacific Ocean there are new continents being gradually formed of coral.

And though marble is more scarce and costly, yet it is by no means a rare stone.

In the fourth place, carbon has a large share in the composition of coal. When coal is heated in the gas-works, it parts with most of its other elements and some of its carbon, and there remains a cinder-like substance called coke, which is almost pure carbon.

Fifthly, carbon is found in the bodies of animals, chiefly in the fat and bones.

Sixthly, it composes the chief part of the solid portion of the whole vegetable kingdom.

These are only *some* of the numerous forms which carbon takes when in combination, but they are quite sufficient to show in what widely different and interesting relations the same element may occur; perhaps we could have selected no better example of this than carbon.

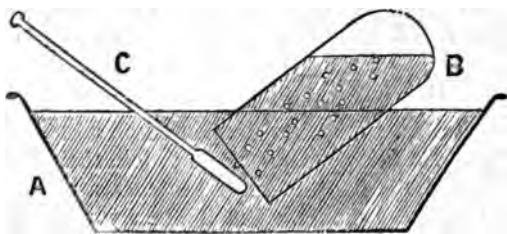
We will bring this lesson to an end by telling you something which will surprise you. Sugar is formed of carbon, oxygen, and hydrogen,—these last two being the elements of water. If a few drops of strong sulphuric acid (which has a great affinity for water) be poured on a lump of sugar, the oxygen and hydrogen quickly go to join their great friend the acid, and the lump of sugar becomes a black mass of carbon, just like a cinder. But if when you are older you try this experiment for yourselves, remember that sulphuric acid is very poisonous and dangerous—that it will eat holes in your clothes and burn your fingers, if it touches them.

### III. WATER.

Water, as already stated, is not an element. It is a combination (strange to say) of two gases, oxygen and hydrogen. The clearest proof of this can be obtained by means of the Voltaic battery, which is a kind of electrical machine. With this instrument a galvanic current may be made to pass

through water, which may thus be decomposed into its two constituent gases. These may be collected : both are colourless and tasteless ; but the one burns with a light blue flame and is poisonous, the other will not itself burn, but will greatly increase the brilliancy of any flame burning in it. The former is hydrogen, the latter oxygen. This method of separating water into its elements is slow, but no other method shows so clearly and convincingly that oxygen and hydrogen are the constituents of water.

If you were to take an old gun-barrel and place within it some scraps of old iron, then lay the middle part of it over a hot fire, and cause steam to pass through the barrel, this steam would decompose. The oxygen, having a great affinity for iron, would unite with it, and the hydrogen would come out at the other end of the gun-barrel. In this way large quantities of hydrogen may be cheaply made, but this method only gives you *one* of the gases (hydrogen) free.



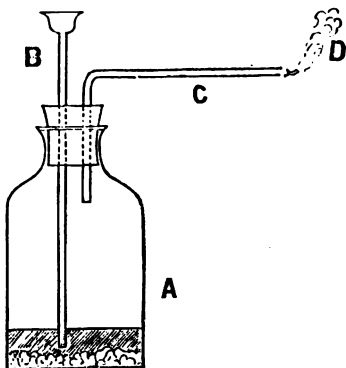
A more simple illustration of hot iron decomposing water may be had thus. A is a pan of water, B a vessel first filled with water and then held with the closed end raised out of the water, as in the figure. Now take a red-hot poker c and plunge it into the water under the mouth of B. The hot iron will decompose a small portion of the water, taking the oxygen to itself, and setting the hydrogen free, which will rise in bubbles to the top of the water in B.

These two experiments prove, as was said in the first

lesson, that heat sometimes assists the combination, sometimes the decomposition of elements; for heat causes the oxygen to separate itself from the hydrogen and combine with the iron.

We will explain to you yet another method of obtaining hydrogen by the decomposition of water, because this is the method usually adopted, except in cases where large quantities are required.

Place in a bottle A, the cork of which is bored with two holes to admit glass tubes, some clippings or filings of zinc, with enough water to cover them. Now pour through B some sulphuric acid, and an effervescence will commence, the gas hydrogen being given off by the tube c. Wait a short time for the air which was at first in the bottle to escape, and then pure hydrogen will issue in a small jet at D, and may be lighted.



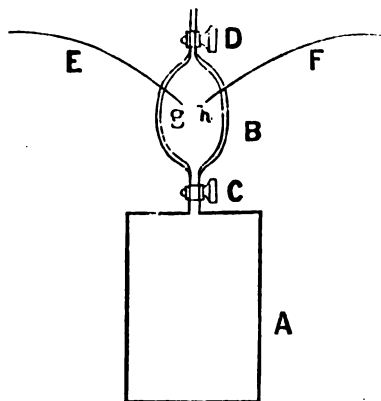
The process is thus explained :—Sulphuric acid has a strong affinity for oxide of zinc, a combination of oxygen and zinc. These, therefore, unite, and the water is robbed of its oxygen, leaving hydrogen to come off in small bubbles.

If after you have separated water into its two constituents you would like to see them combine again to form water, you must mingle them, and introduce a light. This is dangerous if large quantities are used, for an explosion will take place, which will be more or less violent according to the quantity used. It is very amusing to make soap-bubbles with a mixture of these gases, for if you touch them with a light they will explode with a loud bang, and the quantity in one bubble is too small to do the slightest harm.



The explosion is the sudden combination of the elements; and vapour of water is formed. An instrument has been invented by means of which this fact may be proved.

A is a large vessel containing oxygen and hydrogen mixed in the proper proportion. B is a smaller vessel of strong thick glass. The two vessels are connected by a pipe, in



which is a stopcock c, like the tap of a gas-burner. A similar stopcock is placed in the pipe d, which leads to an air-pump. E and F are wires passing through the glass and nearly meeting within the vessel B at g and h; these wires are connected with an electrical machine.

The first thing to be done is to open the tap d, and pump all the air out of B. Then close d, and open c; of course the mixed gases rush out of A, until B is full. Now close c, and by means of the electrical machine cause a spark to pass from g to h. This explodes the gases in B. Wait a short time for the vapour of water which has been formed to condense, and then open c again, and keep repeating the process. The vessel B will soon be seen to be covered with drops of water. The reason why the process must be repeated again and again is that the amount of water formed by each explosion is very small.

A simpler method, but not quite so convincing, is to burn hydrogen from a jet in common air under a bell-glass. The glass will soon be found covered with drops of moisture,—the hydrogen having combined with the oxygen of the air to form water.

A still simpler illustration of this is to hold a cold tumbler or glass jar for a very short time over an ordinary gas jet. There is hydrogen in common coal-gas, and this will combine with the oxygen of the air to form water, so that the tumbler will be immediately covered with a visible deposit of vapour.

You have heard, I dare say, of "setting the Thames on fire," and you have perhaps thought it an impossibility. But it is not at all impossible to cause flames to spring out of water. We told you in our first lesson that the metal potassium had a very great affinity for oxygen. This metal, being light, will swim upon water. If, then, you place a lump of potassium upon water, the metal will at once begin to combine rapidly with the oxygen of the water, setting the hydrogen free; and as there is much heat produced by this process, the hydrogen will catch fire and burn so long as any of the metal potassium remains. If, therefore, you cannot set the Thames actually on fire, you now know how the hydrogen which water contains may be set on fire, causing an *appearance* of burning water.

Water may be boiled or frozen, and yet will not change its chemical character; so that ice, water, and steam are simply the *same* substance at different degrees of temperature. Many other substances are capable of taking more than one of these three forms—the solid, the liquid, and the gaseous; and we have good reason to believe that all substances would be capable of assuming all three forms if only we could attain the requisite temperature.

Some substances have a great affinity for water, and will attract the moisture of the atmosphere to them. Thus salt soon becomes very damp if kept in a moist place. Some people hang up a bunch of seaweed to serve instead of a weather-glass; when it is clear and fine, the seaweed is dry and hard; when the air becomes moist with approaching rain, the salt in the seaweed attracts the moisture, and it becomes soft and damp. In frosty weather, when thought-

less and selfish boys have made a slide on the pavement, where there is great danger of some passer-by, who cannot slide, coming to the ground, it is a common practice to sprinkle salt upon the slippery surface. This salt readily combines with the water; and as a mixture of salt and water will not freeze except in very intensely cold weather, the slide will commonly be destroyed in a few minutes.

Water often *assists* chemical combination, and it does so by bringing the particles of the substances which have to combine closer together. Take some carbonate of soda and some tartaric acid, which are both white powders: mix them together, and no change takes place; now add water, and there is a violent effervescence,—and you have a very pleasant drink for hot weather. The carbonate of soda consists of carbonic acid and soda; the tartaric acid drives the carbonic acid out, and takes its place as soon as the water is added.

#### IV. LIME.

Lime is a combination of a metal and a gas—calcium and oxygen. Calcium is a light yellow metal which has such an affinity for oxygen that it rapidly combines with it, unless protected in the same manner as potassium (see 1st lesson). If heated it will burn in the air, and it then combines with oxygen still more rapidly,—lime being formed.

Common limestone is a combination of lime with carbonic acid. When this is heated in a kiln, the poisonous carbonic acid gas is driven off (for which reason it is dangerous to sleep in the vicinity of a lime-kiln), leaving quicklime—that is, lime unmixed with water.

Quicklime is one of those substances which have a great affinity for water: it unites with it very readily, and falls away to a white powder called slaked lime. The process of slaking lime is accompanied by great heat.

Mix some freshly slaked lime with water, let it settle, and then get a tumbler of this water as clear as you can. Take

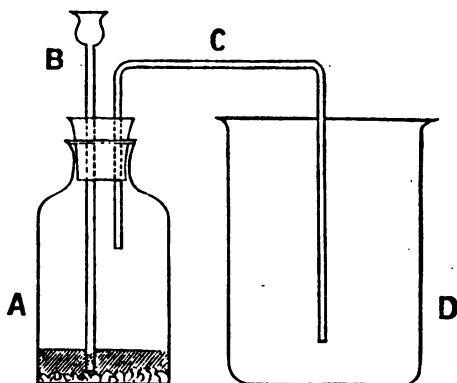
a straw or a glass tube and blow through it into the lime-water; and in a short time it will become quite milky in appearance. The carbonic acid contained in your breath has united with the lime to form carbonate of lime, or chalk, which will not *dissolve* in water (as sugar or salt will), and which therefore makes the water white. This simple experiment proves that your breath contains a quantity of carbonic acid, and also affords an illustration of the way in which water assists the process of combination, for if you were to breathe on a dry lump of lime you would not succeed in forming chalk.

The experiment, moreover, shows that lime has an affinity for carbonic acid, and this is *one* reason why mortar becomes hard in time: the lime attracts to itself carbonic acid from the air, and gradually hardens into carbonate of lime.

Lime is often used as a manure; but in some soils it would be useless, and in others mischievous. For lime is not like many other manures which have nourishing properties *in themselves*, but it is chiefly useful in taking the place of potash and ammonia, thus setting these free to nourish plants, or in causing clay soils to crumble, or in removing certain causes of barrenness.

Lime, potash, soda, and other substances are called *bases*, because they form the bases or foundations of salts. A *salt* is a combination of an acid with a base: thus carbonic acid and lime produce the salt called carbonate of lime; nitric acid and potash produce nitrate of potash, or salt-petre, and so on. Certain acids have a strong affinity for certain bases, so that, for example, if you mix in a tumbler of water carbonate of soda and tartaric acid, the latter will drive the carbonic acid away, and unite itself with the soda. In like manner, if you place some carbonate of lime (chalk or broken marble) in a bottle A, which is provided with a cork through which pass two glass tubes, on pouring through the tube B some muriatic acid, an effervescence will take place. This is nothing else than the escaping of the carbonic

acid, which is being driven out by the stronger muriatic acid. The carbonic acid passes off by the tube c, and, being heavy, may be collected at the bottom of a jar d. Several



interesting experiments may now be made. A lighted candle may be lowered into d and will be extinguished by the heavy poisonous gas. Or a small toy bucket may be lowered into it, and when this is full of gas, it may be drawn up and emptied over a lighted candle, which it will extinguish almost in the same manner as if it were a small bucketful of water drawn out of a well.

Lime enters largely into the composition of animals, forming the solid parts of the bones and teeth, and the shells of many molluscs. It enters also into the composition of plants. It is diffused in the ocean, principally in the form of muriate of lime, and is a very prevalent ingredient in rocks.

#### V. POISONS AND THEIR ANTIDOTES.

Many poisons are of such a nature that they may be rendered harmless, or nearly so, by the addition of some other substance, called the *antidote* to the poison. In some

cases the antidote is itself dangerous and difficult of application: with these we had better not meddle. But in other cases an antidote may be safely applied by any one.

Suppose a person has swallowed some poisonous acid,—as nitric acid or aqua fortis, sulphuric acid or vitriol, muriatic acid or oxalic acid. Give him as quickly as possible weak doses of magnesia, common chalk or whiting, or carbonate of soda, whichever is nearest to hand. If none of these can be had quickly, break down some of the plaster of a room, hammer it to a powder, and give it in water to drink.

The explanation of these remedies is that the acid combines with the antidote, or with some portion of it, to form a salt, which, though perhaps not always quite harmless, is much less dangerous to life than the fiery acid which is eating into the very flesh of the poisoned person. Thus sulphuric acid (vitriol) would combine with magnesia to form sulphate of magnesia, or Epsom salts.

Again, suppose a person has swallowed a quantity of ammonia (hartshorn) or carbonate of ammonia, of soda or carbonate of soda, of potash or carbonate of potash, or of lime. Give vinegar and water, and the acid vinegar will combine with the ammonia, soda, potash, or lime, and counteract the poisonous effects.

If nitrate of silver be the poison, common salt may be administered; acids and bases will in this case change places, and there will be formed two non-poisonous salts.

The antidote to sugar of lead (also called acetate of lead) is sulphate of soda or magnesia, and to white lead (also called carbonate of lead) sulphate of magnesia or Epsom salts, and vinegar and water.

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## THE HOLBORN SERIES.

### THE MOUNTAIN OF MISERIES.

[JOSEPH ADDISON, b. 1672, d. 1719, was a famous essayist. He contributed two hundred and seventy-four essays to the *Spectator*—a paper on manners, morals, and philosophy, that appeared every morning in the form of a single leaf in the years 1711 and 1712. Macaulay says: "His best essays approach near to absolute perfection; nor is their excellence more wonderful than their variety." And Dr. Johnson had an equally high opinion of his writings: "Whoever," he says, "wishes to attain an English style, familiar but not coarse, and elegant but not ostentatious, must give his days and nights to the volumes of Addison."]

It is a celebrated thought of Socrates,<sup>1</sup> that if all the misfortunes of mankind were cast into a public stock, in order to be equally distributed among the whole species, those who now think themselves the most unhappy would prefer the share they are already possessed of before that which would fall to them by such a division. Horace<sup>2</sup> has carried this thought a great deal farther, and maintains that the hardships or misfortunes we lie under are more easy to us than those of any other person would be, in case we could change conditions with him.

#### JUPITER'S FIRST PROCLAMATION.

As I was ruminating on these two remarks, and seated in my elbow-chair, I insensibly fell asleep; when on a sudden methought there was a proclamation made by Jupiter,<sup>3</sup> that every mortal should bring in his griefs and calamities, and throw them together in a heap. There was a large plain appointed for this purpose. I took my stand in the centre of it, and saw with a great deal of pleasure the whole human species marching one after another, and throwing down their several loads, which immediately grew up into a prodigious mountain, that seemed to rise above the clouds.

There was a certain lady<sup>4</sup> of a thin airy shape, who was very active in this solemnity. She carried a magnifying glass in one of her hands, and was clothed in a loose flowing robe, embroidered with several figures of fiends and spectres, that discovered themselves in a thousand chimeri-

cal<sup>s</sup> shapes as her garment hovered in the wind. There was something wild and distracted in her looks. Her name was Fancy. She led up every mortal to the appointed place, after having very officiously assisted him in making up his pack, and laying it upon his shoulders. My heart melted within me to see my fellow-creatures groaning under their respective burdens, and to consider that prodigious bulk of human calamities which lay before me.

There were, however, several persons who gave me great diversion upon this occasion. I observed one bringing in a fardel very carefully concealed under an old embroidered cloak, which, upon his throwing it into the heap, I discovered to be Poverty. Another, after a great deal of puffing, threw down his luggage, which, upon examining, I found to be his wife.

There were multitudes of lovers saddled with very whimsical burdens composed of darts and flames ; but, what was very odd, though they sighed as if their hearts would break under these bundles of calamities, they could not persuade themselves to cast them into the heap when they came up to it ; but, after a few faint efforts, shook their heads and marched away, as heavy laden as they came. I saw multitudes of old women throw down their wrinkles, and several young ones who stripped themselves of a tawny skin. There were very great heaps of red noses, large lips, and rusty teeth. The truth of it is, I was surprised to see the greatest part of the mountain made up of bodily deformities. Observing one advancing towards the heap with a larger cargo than ordinary upon his back, I found upon his near approach that it was only a natural hump, which he disposed of with great joy of heart among this collection of human miseries. There were likewise distempers of all sorts ; though I could not but observe that there were many more imaginary than real. One little packet I could not but take notice of, which was a complication of all the diseases incident to human nature, and



was in the hand of a great many fine people ; this was called the spleen.<sup>6</sup> But what most of all surprised me, was a remark I made that there was not a single vice or folly thrown into the whole heap : at which I was very much astonished, having concluded within myself that every one would take this opportunity of getting rid of his passions, prejudices, and frailties.

I took notice in particular of a very profligate fellow, who I did not question came loaded with his crimes : but upon searching into his bundle I found that, instead of throwing his guilt from him, he had only laid down his memory. He was followed by another worthless rogue, who flung away his modesty instead of his ignorance.

When the whole race of mankind had thus cast their burdens, the phantom<sup>7</sup> which had been so busy on this occasion, seeing me an idle spectator of what passed, approached towards me. I grew uneasy at her presence, when of a sudden she held her magnifying glass full before my eyes. I no sooner saw my face in it, but was startled at the shortness of it, which now appeared to me in its utmost aggravation. The immoderate breadth of the features made me very much out of humour with my own countenance, upon which I threw it from me like a mask. It happened very luckily that one who stood by me had just before thrown down his visage, which it seems was too long for him. It was indeed extended to a most shameful length ; I believe the very chin was, modestly speaking, as long as my whole face. We had both of us an opportunity of mending ourselves ; and all the contributions being now brought in, every man was at liberty to exchange his misfortunes for those of another person.

#### JUPITER'S SECOND PROCLAMATION.

I saw with unspeakable pleasure the whole species thus delivered from its sorrows ; though at the same time, as we

stood round the heap, and surveyed the several materials of which it was composed, there was scarcely a mortal in this vast multitude who did not discover what he thought pleasures and blessings of life, and wondered how the owners of them ever came to look upon them as burdens and grievances.

As we were regarding very attentively this confusion of miseries, this chaos<sup>8</sup> of calamity, Jupiter issued out a second proclamation, that every one was now at liberty to exchange his affliction, and to return to his habitation with any such other bundle as should be delivered to him.

Upon this Fancy began again to bestir herself, and, parcelling out the whole heap with incredible activity, recommended to every one his particular packet. The hurry and confusion at this time was not to be expressed. Some observations which I made upon the occasion I shall communicate to the public. A venerable grey-headed man, who had laid down the colic, and who I found wanted an heir to his estate, snatched up an undutiful son that had been thrown into the heap by an angry father. The graceless youth, in less than a quarter of an hour, pulled the old gentleman by the beard, and had like to have knocked his brains out ; so that meeting the true father, who came towards him with a most rueful face, he begged him to take his son again, and give him back his colic ; but they were incapable either of them to recede from the choice they had made. A poor galley-slave, who had thrown down his chains, took up the gout in their stead, but made such wry faces that one might easily perceive he was no great gainer by the bargain. It was pleasant enough to see the several exchanges that were made, for sickness against poverty, hunger against want of appetite, and care against pain.

The female world were very busy among themselves in bartering for features : one was trucking a lock of grey hairs for a carbuncle, another was making over a short waist for a pair of round shoulders, and a third cheapening<sup>9</sup> a bad face

for a lost reputation ; but on all these occasions there was not one of them who did not think the new blemish, as soon as she had got it into her possession, much more disagreeable than the old one. I made the same observation on every other misfortune or calamity which every one in the assembly brought upon himself in lieu of what he had parted with ; whether it be that all the evils which befall us are in some measure suited and proportioned to our strength, or that every evil becomes more supportable by our being accustomed to it, I shall not determine.

I must not omit my own particular adventure. My friend with a long visage had no sooner taken upon him my short face, but he made such a grotesque figure in it that as I looked upon him I could not forbear laughing at myself, insomuch that I put my own face out of countenance. The poor gentleman was so sensible of the ridicule, that I found he was ashamed of what he had done : on the other side, I found that I myself had no great reason to triumph ; for as I went to touch my forehead I missed the place, and clapped my finger upon my upper lip. Besides, as my nose was exceeding prominent, I gave it two or three unlucky knocks as I was playing my hand about my face, and aiming at some other part of it. I saw two other gentlemen by me who were in the same ridiculous circumstances. These had made a foolish swop between a couple of thick bandy legs and two long trapsticks that had no calves to them. One of these looked like a man walking upon stilts, and was so lifted up into the air, above his ordinary height, that his head turned round with it ; while the other made such awkward circles, as he attempted to walk, that he scarcely knew how to move forward upon his new supporters.

#### JUPITER'S THIRD PROCLAMATION.

The heap was at last distributed among the two sexes, who made a most piteous sight, as they wandered up and down under the pressure of their several burdens. The

whole plain was filled with murmurs and complaints, groans and lamentations. Jupiter, at length taking compassion on the poor mortals, ordered them a second time to lay down their loads, with a design to give every one his own again. They discharged themselves with a great deal of pleasure; after which the phantom who had led them into such gross delusions was commanded to disappear. There was sent in her stead a goddess of a quite different figure: her motions were steady and composed, and her aspect serious but cheerful. She every now and then cast her eyes towards heaven, and fixed them upon Jupiter; her name was Patience. She had no sooner placed herself by the Mount of Sorrows, but, what I thought very remarkable, the whole heap sunk to such a degree that it did not appear a third part so big as it was before. She afterwards returned every man his own proper calamity, and, teaching him how to bear it in the most commodious manner, he marched off with it contentedly, being very well pleased that he had not been left to his own choice as to the kind of evils which fell to his lot.

Besides the several pieces of morality to be drawn out of this vision, I learnt from it never to repine at my own misfortunes, or to envy the happiness of another, since it is impossible for any man to form a right judgment of his neighbour's sufferings; for which reason also I have determined never to think too lightly of another's complaints, but to regard the sorrows of my fellow-creatures with sentiments of humanity and compassion.

<sup>1</sup> **Socrates.**—A celebrated philosopher of Greece, born B.C. 469.

<sup>2</sup> **Horace.**—A famous Roman poet, born B.C. 65.

<sup>3</sup> **Jupiter.**—The chief of the gods, according to the ancient Romans.

<sup>4</sup> **A certain lady.**—This is Fancy. She carries a magnifying glass because Fancy magnifies all our troubles. Her dress is embroidered with frightful fiends and spectres, because Fancy brings objects of fear before the minds of the timid.

<sup>5</sup> **Chimerical.**—Of the nature of a *chimera*—that is, a fabulous fire-spouting monster, with a lion's head, a serpent's tail, and a goat's body.

<sup>6</sup> **The spleen.**—Ill-humour, melancholy.

<sup>7</sup> **The phantom.**—The thin airy being representing Fancy.

<sup>8</sup> **Chaos.**—Confusion.

<sup>9</sup> **Cheapening.**—Beating down the price of; trying to get at the lowest price.

## GOD'S WAYS ARE BEST.

HEAV'N from all creatures hides the book of Fate,  
 All but the page prescribed, their present state ;  
 From brutes ' what men, from men what spirits know,  
 Or who could suffer being here below ?  
 The lamb thy riot ' dooms to bleed to-day,  
 Had he thy reason, would he skip and play ?  
 Pleased to the last, he crops the flow'ry food,  
 And licks the hand just raised to shed his blood.  
 O blindness to the future ! kindly giv'n,  
 That each may fill the circle mark'd by Heav'n :  
 Who sees with equal eye, as God of all,  
 A hero perish, or a sparrow fall ;  
 Atoms or systems into ruin hurl'd,  
 And now a bubble burst, and now a world.

Hope humbly, then, with trembling pinions soar ;  
 Wait the great teacher, Death ; and God adore.  
 What future bliss, He gives not thee to know,  
 But gives that hope to be thy blessing now.  
 Hope springs eternal in the human breast ;  
 Man never *is* but always *to be* blest ;  
 The soul, uneasy and confined from home,  
 Rests and expatiates ' in a life to come.

Lo, the poor Indian ! whose untutor'd mind  
 Sees God in clouds, and hears Him in the wind ;  
 His soul proud Science never sought to stray  
 Far as the solar walk, or milky way ;<sup>4</sup>  
 Yet simple Nature to his hope has giv'n,  
 Behind the cloud-topp'd hill, a humbler heav'n ;  
 Some safer world in depth of woods embraced,  
 Some happier island in the wat'ry waste,  
 Where slaves once more their native land behold,  
 No fiends torment, nor Christians thirst for gold.  
*To be* ' contents his natural desire,  
 He asks no angel's wing, no seraph's fire,<sup>6</sup>  
 But thinks, admitted to that equal sky,  
 His faithful dog shall bear him company.

Go, wiser thou ! ' and in thy scale of sense  
 Weigh thy opinion against Providence ;  
 Call imperfection what thou fanciest such,  
 Say, here He gives too little, there too much :  
 Destroy all creatures for thy sport or gust,<sup>8</sup>  
 Yet cry, if man's unhappy, God's unjust ;

If man alone engross not Heav'n's high care,—  
 Alone made perfect here, immortal there—  
 Snatch from his hand the balance and the rod,  
 Re-judge his justice, be the God of God.

In pride, in reasoning pride, our error lies ;  
 All quit their sphere, and rush into the skies :  
 Pride still is aiming at the blest abodes,  
 Men would be angels, angels would be Gods.  
 Aspiring to be Gods, the angels fell,  
 Aspiring to be angels, men rebel :  
 And who but wishes to revert <sup>9</sup> the laws  
 Of order, sins against th' Eternal Cause. <sup>10</sup>

<sup>1</sup> From brutes, etc. — God hides from brutes what men know, etc.

<sup>2</sup> Thy riot. — Thy feasting.

<sup>3</sup> Expatiates. — Ranges at large.

<sup>4</sup> Milky way. — A band of light in the sky caused by clusters of innumerable stars.

<sup>5</sup> To be. — Simply to live.

<sup>6</sup> No seraph's fire. — No angel's ardour of spirit and warm devotion.

<sup>7</sup> Go, wiser thou ! — This and the

next nine lines are spoken in *irony* : the poet is rebuking those who think themselves wiser than Providence ; in doing so he seemingly falls in with their opinions, but is really mocking them. This is an ironical or satirical mode of speaking.

<sup>8</sup> Gust. — Pleasure of tasting.

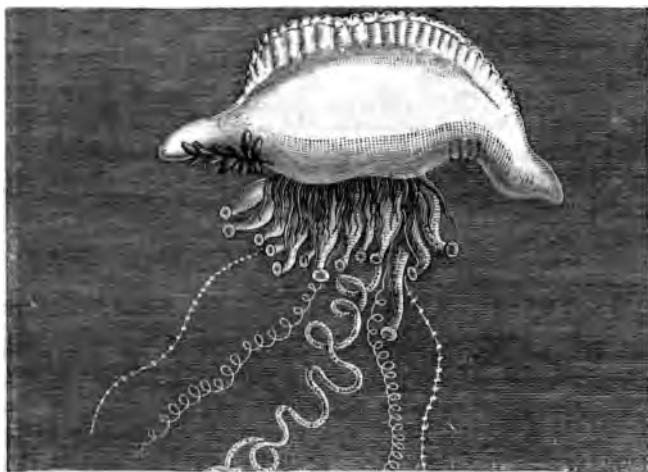
<sup>9</sup> Revert. — Here means *reverse*.

<sup>10</sup> Eternal Cause. — Almighty God, the Cause of all that exists.

## THE PHYSALIA, OR PORTUGUESE MAN-OF-WAR.

AMONG the many strange creatures of brilliant colour and elegant contour which swarm in the warmer parts of the ocean, none take a stronger hold on the fancy of the beholder than the *Physalia* ; and certainly none is more familiar than the little thing he daily marks floating in the sunlit waves, as the ship glides swiftly by, which the sailors tell him is the *Portuguese man-of-war*. Perhaps a dead calm has settled over the sea, and he leans over the bulwarks of the ship, scrutinising this ocean-rover at leisure, as it hastily rises and falls on the long, sluggish heavings of the glassy surface. Then he sees that the comparison of the strange creature to a ship is a felicitous <sup>1</sup> one, for at a little distance it might well be mistaken for a child's mimic boat, shining in all the gaudy painting in which it left the toy-shop.

Not unfrequently, one of these tiny vessels comes so close alongside, that, by means of the ship's bucket, with the assistance of a sharp fellow who has jumped into the "chains" with a boat-hook, it is captured and brought on deck for examination. A dozen voices are, however, lifted, warning you by no means to touch it, for well the experienced sailor knows its terrible powers of defence. It does not now appear so much like a ship as when it was at a distance.



It is an oblong bladder of tough membrane, varying considerably in shape, for no two agree in this respect ; varying also in size, from less than a finger to the size of a man's hat. Once, on a voyage to Mobile,<sup>2</sup> when rounding the Florida reef, I was nearly a whole day passing through a fleet of these little Portuguese men-of-war, which studded the smooth sea as far as the eye could reach, and must have extended for many miles. They were of all sizes within the limits I have mentioned.

*That wonderful river, with a well-defined course through*

the midst of the Atlantic—the Gulf Stream<sup>3</sup>—brings in its warm waters many of the denizens of tropical seas, and wafts them to the shores on which its waves impinge. Hence it is that so many of the proper pelagic<sup>4</sup> creatures are from time to time observed on the coasts of Devon and Cornwall. The Portuguese man-of-war is among them, sometimes paying its visit in fleets, more commonly in single stranded hulks.<sup>5</sup> Scarcely a season passes without one or more of these lovely strangers being found in the vicinity of Torquay.<sup>6</sup> Usually in these stranded examples the tentacles<sup>7</sup> and suckers are much mutilated by washing on the shore. The fishermen who pick them up always endeavour to make a harvest of their capture, not by selling, but by making an exhibition of them.

If fishes have the misfortune to come in contact with one of these creatures, each tentacle, by a movement as rapid as a flash of lightning, or sudden as an electric shock, seizes and benumbs them, winding round their bodies as a serpent winds itself around its victim. A Physalia of the size of a walnut will kill a fish much stronger than a herring. The flying-fish and the cuttle-fish are the habitual prey of the Physalia. It seems that mere contact with the tentacles is not necessarily injurious; for it has been observed that the Physalia is often accompanied by small fishes which play around and among these dreaded organs with impunity. It is therefore probable that the injection of the poison is under the control of the Physalia's will.

GOSSE.

<sup>1</sup> **Felicitous comparison.** — Lit., a happy comparison; because it was a happy thought which suggested the comparison [*L. felix*, happy].

<sup>2</sup> **Mobile.**—A town in Alabama, on the coast of the Gulf of Mexico.

<sup>3</sup> **The Gulf Stream.**—A warm current which flows out of the Gulf of Mexico between Cuba and Florida, passes along the eastern shore of North America, and on reaching the island of Newfoundland, turns eastward, crosses the Atlantic and bathes the shores of Western Europe.

<sup>4</sup> **Pelagic.**—Belonging to the open sea [Gr. *pelagos*, the sea].

<sup>5</sup> **Stranded hulks.**—A *hulk* is an old dismantled ship; *stranded*, run aground. The physalia which has been thrown up on the beach is here likened to a stranded hulk.

<sup>6</sup> **Torquay.**—A beautiful town in Devon on Tor Bay.

<sup>7</sup> **Tentacles.**—The thread-like organs which serve the creature as hands.



**SPEECH BY GEORGE CANNING AT PLYMOUTH.**

[MR. CANNING was Premier during most of the reign of George IV. The commercial policy which this great statesman inaugurated led in time to the repeal of the corn laws and the establishment of free trade. The following speech was delivered in 1823, four years before his death.]

MR. MAYOR AND GENTLEMEN,—I accept with thankfulness, and with greater satisfaction than I can express, this flattering testimony of your good opinion and goodwill. I must add, that the value of the gift itself has been greatly enhanced by the manner in which your worthy and honourable Recorder has developed the motives which suggested it, and the sentiments which it is intended to convey.

Gentlemen, your Recorder has said very truly that whoever, in this free and enlightened state, aims at political eminence,<sup>1</sup> and discharges political duties, must expect to have his conduct scrutinised, and every action of his public life sifted with no ordinary jealousy and with no sparing criticism; and such may have been my lot, as much as that of other public men. But, gentlemen, unmerited obloquy<sup>2</sup> seldom fails of an adequate, though perhaps tardy, compensation. I must think myself, as my honourable friend has said, eminently fortunate if such compensation as he describes has fallen to me at an earlier period than to many others: if I dare flatter myself (as his partiality has flattered me), that the sentiments that you are kind enough to entertain for me are in unison with those of the country; if, in addition to the justice done me by my friends, I may, as he has assured me, rely upon a candid construction,<sup>3</sup> even from political opponents.<sup>4</sup>

But, gentlemen, the secret of such a result does not lie deep.

It consists only in an honest and undeviating pursuit of what one conscientiously believes to be one's public duty—a pursuit which, steadily continued, will—however detached and separate parts of a man's conduct may be viewed under

the influence of partialities or prejudices—obtain for it,<sup>5</sup> when considered as a whole, the approbation of all honest and honourable minds. Any man may occasionally be mistaken as to the means most conducive to the end which he has in view; but if the end be just and praiseworthy, it is by that he will be ultimately judged, either by his contemporaries<sup>6</sup> or by posterity.

Gentlemen, the end which I confess I have always had in view, and which appears to me the legitimate object of pursuit to a British statesman, I can describe in one word.<sup>7</sup> The language of modern philosophy is wisely and diffusively benevolent; it professes the perfection of our species, and the amelioration of the lot of all mankind. Gentlemen, I hope that my heart beats as high for the general interest of humanity—I hope that I have as friendly a disposition towards other nations of the earth, as any one who vaunts his philanthropy<sup>8</sup> most highly; but I am contented to confess that, in the conduct of political affairs, the grand object of my contemplation is the interest of England.

Not, gentlemen, that the interest of England is an interest which stands isolated and alone. The situation which she holds forbids an exclusive selfishness; her prosperity must contribute to the prosperity of other nations, and her stability to the safety of the world. But, intimately connected as we are with the system of Europe, it does not follow that we are therefore called upon to mix ourselves, on every occasion, with a restless and meddling activity, in the concerns of the nations which surround us. It is upon a just balance of conflicting duties, and of rival, but sometimes incompatible,<sup>9</sup> advantages, that a government must judge when to put forth its strength, and when to husband it for occasion yet to come.

Our ultimate object must be the peace of the world. That object may sometimes be best attained by prompt exertions—sometimes by abstinence from interposition in contests which we cannot prevent. It is upon these prin-

ciples that, as has been most truly observed by my worthy friend, it did not appear to the government of this country to be necessary that Great Britain should mingle in the recent contest between France and Spain.

Your worthy Recorder has accurately classed the persons who would have driven us into that contest. There were undoubtedly among them those who desired to plunge this country into the difficulties of war, partly from the hope that those difficulties would overwhelm the administration;<sup>10</sup> but it would be most unjust not to admit that there were others who were actuated by nobler principles and more generous feelings, who would have rushed forward at once from the sense of indignation at aggression, and who deemed that no act of injustice could be perpetrated from one end of the universe to the other, but that the sword of Great Britain should leap from its scabbard to avenge it. But as it is the province of law to control the excess even of laudable passions and propensities in individuals, so it is the duty of government to restrain within due bounds the ebullition of national sentiment, and to regulate the course and direction of impulses which it cannot blame. Is there any one among the latter class of persons described by my honourable friend (for to the former I have nothing to say), who continues to doubt whether the government did wisely in declining to obey the precipitate enthusiasm<sup>11</sup> which prevailed at the commencement of the contest in Spain? Is there anybody who does not now think that it was the office of government to examine more closely all the various bearings of so complicated a question, to consider whether they were called upon to aid in repelling a foreign invader, or to take part in a civil war? Is there any man that does not now see what would have been the extent of burdens that would have been cast upon this country? Is there any one who does not acknowledge that, under such circumstances, the enterprise would have been one *to be characterized only by a term borrowed from that*

part of the Spanish literature with which we are most familiar—*Quixotic*;<sup>12</sup> an enterprise romantic in its origin and thankless in the end?

But while we thus control even our feelings by our duty, let it not be said that we cultivate peace either because we fear, or because we are unprepared for war; on the contrary, if eight months ago the government did not hesitate to proclaim that the country was prepared for war, if war should be unfortunately necessary, every month of peace that has since passed has but made us so much the more capable of exertion. The resources created by peace are means of war. In cherishing those resources, we but accumulate those means. Our present repose is no more a proof of inability to act, than the state of inertness and inactivity in which I have seen those mighty masses<sup>13</sup> that float in the waters about your town is a proof that they are devoid of strength, and incapable of being fitted out for action. You well know, gentlemen, how soon one of those stupendous masses, now reposing on their shadows in perfect stillness—how soon, upon any call of patriotism or of necessity, it would assume the likeness of an animated thing, instinct with life and motion—how soon it would ruffle, as it were, its swelling plumage—how quickly it would put forth all its beauty and its bravery,<sup>14</sup> collect its scattered elements of strength, and awaken its dormant thunder. Such as is one of these magnificent machines when springing from inaction into a display of its might—such is England herself, while apparently passive and motionless she silently concentrates the power to be put forth on an adequate occasion.<sup>15</sup> But God forbid that that occasion should arise! After a war<sup>16</sup> sustained for nearly a quarter of a century—sometimes single-handed, and with all Europe arrayed at times against her or at her side, England needs a period of tranquillity, and may enjoy it without fear of misconstruction.

Long may we be enabled, gentlemen, to improve the bless-

ings of our present situation, to cultivate the arts of peace, to give commerce, now reviving, greater extension and new spheres of employment, and to confirm the prosperity now generally diffused throughout this island.

<sup>1</sup> **Political eminence.**—Distinction as a statesman.

<sup>2</sup> **Obloquy.**—Severe reproach.

<sup>3</sup> **Candid construction.**—A fair meaning attached to one's words and actions.

<sup>4</sup> **Political opponents.**—Those who take opposite sides in Parliament and the country, such as Liberals and Conservatives.

<sup>5</sup> **For it.**—For a man's conduct.

<sup>6</sup> **Contemporaries.**—Those living at the same time [*L. con*, together, *tempus*, time]. **Posterity.**—Those living afterwards [*L. post*, after].

<sup>7</sup> **In one word.**—Namely, the interest of England.

<sup>8</sup> **Philanthropy.**—Love of mankind [*Gr. philos*, loving, *anthropos*, a man].

<sup>9</sup> **Incompatible advantages.**—Such as cannot be reaped together.

<sup>10</sup> **The administration.**—The ministers entrusted by the sovereign with the government of the country.

<sup>11</sup> **Precipitate enthusiasm.**—Headlong, hasty and hot feeling.

<sup>12</sup> **Quixotic.**—Like Don Quixote, full of noble aims, but void of common sense in his mode of attaining them.

<sup>13</sup> **Mighty masses.**—The ships lying at anchor in the harbour waiting to be refitted.

<sup>14</sup> **Its bravery.**—That which gives the ship a gay and gallant appearance, such as its flags and streamers.

<sup>15</sup> **Adequate occasion.**—An occasion equal to such an undertaking [*L. ad*, to, *æquus*, equal].

<sup>16</sup> **After a war.**—The war with France which ended with the battle of Waterloo, 1815.

## NIGHT AND DEATH.

MYSTERIOUS night ! when our first parent knew  
Thee from report divine, and heard thy name,  
Did he not tremble for this lovely frame,  
This glorious canopy of light and blue ?  
Yet 'neath a curtain of translucent dew,  
Bathed in the rays of the great setting flame,  
Hesperus with the host of heaven came,  
And lo ! creation widened in man's view.  
Who could have thought such darkness lay concealed  
Within thy beams, O sun ! or who could find,  
Whilst fly, and leaf, and insect stood revealed,  
That to such countless orbs thou mad'st us blind !  
Why do we then shun death with anxious strife ?  
If light can thus deceive, wherefore not life ?

J. BLANCO WHITE.

## THE GREAT STONE FACE.

[Abridged from a Tale by NATHANIEL HAWTHORNE, an ingenious American writer, with the spirit of poetry in his prose.]

ONE afternoon, when the sun was going down, a mother and her little boy sat at the door of their cottage, talking about the *Great Stone Face*. They had but to lift their eyes, and there it was plainly to be seen, though miles away, with the sunshine brightening all its features.

And what was the Great Stone Face?

It was a work of nature in her mood of majestic playfulness, formed on the perpendicular side of a mountain by some immense rocks which had been thrown together in such a position as, when viewed at a proper distance, precisely to resemble the features of the human countenance.

### THE PROPHECY.

"Mother," said the little boy, while the Titanic visage smiled on him, "I wish that it could speak, for it looks so very kindly that its voice must needs be pleasant. If I were to see a man with such a face, I should dearly love him."

"Ernest," answered his mother, "if an old prophecy should come to pass, we may see a man some time or other with exactly such a face as that."

Then she proceeded to say that the purport of the prophecy was, that at some future day a child should be born thereabouts, who was destined to become the greatest and noblest personage of his time; and whose countenance in manhood should bear an exact resemblance to the Great Stone Face.

"O mother, dear mother!" cried Ernest, clapping his hands above his head; "I do hope that I shall live to see him!"

Ernest never forgot the story that his mother had told him. The desire to see the fulfilment of the prophecy increased as he grew older. From a happy yet often pensive child, Ernest had grown up to be a mild, quiet, unobtrusive youth—when a rumour went throughout his native valley that the great man was about to appear.

It seems that many years before a young man had emigrated from the valley and settled at a distant seaport. His name was Gathergold. He had become an exceedingly rich merchant, and owner of a whole fleet of bulky-bottomed ships. All the countries of the globe contributed to his wealth: the cold regions of the north, almost within the gloom and shadow of the Arctic Circle, sent him their tribute in the shape of furs; hot Africa sifted for him the golden sands of her rivers, and gathered up the ivory tusks of her great elephants out of the forest; the East came bringing him the rich shawls, and spices, and teas, and the effulgence of diamonds, and the gleaming purity of large pearls. The ocean, not to be behindhand with the earth, yielded up her mighty whales, that Mr. Gathergold might sell their oil and make a profit on it. Be the original commodity what it might, it was gold within his grasp. It might be said of him, as of Midas<sup>2</sup> in the fable, that whatever he touched with his finger immediately glistened and grew yellow. Having grown very rich, Mr. Gathergold bethought himself of his native valley, and resolved to go back thither, and end his days where he was born. With this purpose in view, he sent a skilful architect to build him such a palace as should be fit for a man of his vast wealth to live in.

When the gorgeous palace was finished, all the inhabitants of the valley awaited with impatient interest the arrival of its wealthy owner, who was said to be the prophetic personage so long and vainly looked for.

"Here he comes!" cried a group of people who were assembled to witness the arrival. "Here comes the great Mr. Gathergold!"

A carriage, drawn by four horses, dashed round the turn of the road. Within it, thrust partly out of the window, appeared the physiognomy of a little old man, with a skin as yellow as if his own Midas-hand had transmuted it. He had a low forehead, small, sharp eyes, puckered about with innumerable wrinkles, and very thin lips, which he made still thinner by pressing them forcibly together.

"The very image of the Great Stone Face!" shouted the people. And, what perplexed Ernest still more, they seemed actually to believe it—such is the dazzling power of gold in blinding the eyes of the vulgar. But Ernest turned sadly from the wrinkled shrewdness of that sordid<sup>3</sup> visage, and gazed up the valley, where, amid a gathering mist, gilded by the last sunbeams, he could still distinguish those glorious features which had impressed themselves into his soul. Their aspect cheered him. What did the benign lips seem to say?

"He will come! Fear not, Ernest; the man will come!"

The years went on, and Ernest passed from youth to manhood. His hopes were thrice raised and thrice dashed to the ground; but still the benign lips seemed to say, "Fear not; the man will come."

The years hurried onward, treading in their haste on one another's heels. But now they began to bring white hairs, and scatter them over the head of Ernest. They made reverend wrinkles across his forehead, and furrows in his cheeks. He was an aged man; but not in vain had he grown old. More than the white hairs on his head were the sage thoughts in his mind: his wrinkles and furrows were inscriptions that Time had graved, and in which he had written legends<sup>4</sup> of wisdom that had been tested by the tenor<sup>5</sup> of a life.



## FULFILMENT OF THE PROPHECY.

While Ernest had been growing up and growing old, a bountiful Providence had granted a new poet to this earth. He likewise was a native of the valley, but had spent the greater part of his life at a distance from that romantic region, pouring out his sweet music amid the bustle and din of cities. This man of genius, we may say, had come down from heaven with wonderful endowments. If he sang of a mountain, the eyes of all mankind beheld a mightier grandeur reposing on its breast, or soaring to its summit, than had before been seen there. If his theme were a lovely lake, a celestial smile had now been thrown over it to gleam for ever on its surface ; if it were the vast old sea, even the deep immensity of its dread bosom seemed to swell the more, as if moved by the emotions of the song. Thus the world assumed another and a better aspect from the hour that the poet blessed it with his happy eyes. The effect was no less high and beautiful when his human brethren were the subject of his verse. The man or woman, sordid with the common dust of life, who crossed his daily path, and the little child who played in it, were glorified if he beheld them in his mood of poetic faith. He showed the golden links of the great chain that intertwined them with an angelic kindred ; he brought out the hidden traits of a celestial birth that made them worthy of such kin.

The songs of this poet found their way to Ernest. As he read stanzas<sup>6</sup> that caused the soul to thrill within him, he lifted his eyes to the vast countenance beaming on him so benignantly. "O majestic friend," he murmured, addressing the Great Stone Face, "is not this man worthy to resemble thee?" The Face seemed to smile, but answered not a word.

Now it happened that the poet, though he dwelt so far away, had not only heard of Ernest, but had meditated much upon his character, until he deemed nothing so desirable

as to meet this man, whose untaught wisdom walked hand in hand with the noble simplicity of his life. He accordingly presented himself one summer evening at the door of Ernest's cottage.

"Good evening," said the poet. "Can you give a traveller a night's lodging?"

"Willingly," answered Ernest; and then he added, smiling, "Methinks I never saw the Great Stone Face look so hospitably at a stranger."

The poet sat down on the bench beside him, and he and Ernest talked together. Often had the poet held intercourse with the wittiest and the wisest, but never before with a man like Ernest, whose thoughts and feelings gushed up with such a natural freedom, and who made great truths so familiar by his simple utterance of them. Angels seemed to have wrought with him at his labour in the fields; angels seemed to have sat with him by the fire-side; and dwelling with angels as friend with friends, he had imbibed the sublimity of their ideas, and imbued it with the sweet and lowly charm of household words. So thought the poet. And Ernest, on the other hand, was moved and agitated by the living images which the poet flung out of his mind; and which peopled all the air about the cottage door with shapes of beauty, both gay and pensive.

As Ernest listened to the poet he imagined that the Great Stone Face was bending forward to listen too. He gazed earnestly into the poet's glowing eyes, and examined his features with anxious scrutiny; then turned towards the Great Stone Face; then back, with an uncertain aspect, to his guest. But his countenance fell; he shook his head, and sighed.

At the hour of sunset, Ernest was to discourse to an assemblage of the neighbouring inhabitants in the open air. He and the poet, arm in arm, proceeded to the spot. When Ernest began to speak, his words had power, because they

accorded with his thoughts; and his thoughts had reality and depth, because they harmonized with the life he had always lived. It was not mere breath that this preacher uttered; they were the words of life, because a life of good deeds and holy love was melted into them.

Pearls, pure and rich, had been dissolved into this precious draught. The poet, as he listened, felt that the being and character of Ernest were a nobler strain of poetry than he had ever written. His eyes glistening with tears, he gazed reverently at the venerable man, and said within himself that never was there an aspect so worthy of a prophet and sage as that mild, sweet, thoughtful countenance, with the glory of white hair diffused about it.

As the poet gazed upon the preacher's face, he saw that the prophecy was at last fulfilled. By an irresistible impulse, he threw his arms aloft, and shouted,—

“Behold! behold!—the likeness of the Great Stone Face!”

\* **Titanic visage.**—Gigantic face.

\* **Midas.**—The fable represents Midas as desiring Bacchus (who had given him permission to ask any favour he pleased) to grant that all things which he touched might turn to gold. The request was granted; but as his food and drink were turned into gold, he had soon reason to rue his success.

\* **Sordid visage.**—A face stamped with an expression of meanness and greediness.

\* **Legends.**—Generally mean extraordinary stories of the saints. The word here means records.

\* **Tenor.**—General course.

\* **Stanza.**—A division of a poem.

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## LANGUAGE OF THE EYE.

THE eye reveals what the spirit is doing, what it has done, and what it aims at doing. It discovers the history of the soul to one who has skill to read its meaning. The biography of each human being is insensibly written by each thought, word, and deed, and the eye is the glass in which it may be most clearly seen.

Man cannot fix his eye on the sun, and so far seems imperfect. In Siberia a late traveller found men who

could see the satellites of Jupiter<sup>1</sup> with their unarmed eye. In some respects the animals excel us. The birds have a longer sight, beside the advantage by their wings of a higher observatory. A cow can bid her calf by secret signal, probably of the eye, to run away, or to lie down and hide itself. The jockeys say of certain horses, that "they look over the whole ground." The out-door life, and hunting, and labour, give equal vigour to the human eye. A farmer looks out at you as strong as the horse; his eye-beam is like the stroke of a staff. An eye can threaten like a loaded and levelled gun, or can insult like hissing and kicking; or, in its altered mood, by beams of kindness it can make the heart dance with joy.

The eye obeys exactly the action of the mind. When a thought strikes us, the eyes fix and remain gazing at a distance.

There is no nicety of learning sought by the mind which the eyes do not vie in acquiring. "An artist," said Michael Angelo,<sup>2</sup> "must have his measuring tools not in the hand but in the eye;" and there is no end to the catalogue of its performances.

Eyes are bold as lions—roving, running, leaping, here and there, far and near. They speak all languages. They wait for no introduction; ask no leave of age or rank; they respect neither poverty nor riches, neither learning nor power, nor virtue, nor sex—but intrude, and come again, and go through and through you, in a moment of time. What inundation of life and thought is discharged from one soul into another by them! The glance is natural magic. We look into the eyes of a stranger to know if this other form is another self; and the eyes will not lie, but make a faithful confession what inhabitant is there. The spirit in that momentary glance which responds to yours appears at the windows of the house and tells its own tale.

The eyes of men converse as much as their tongues, with the advantage that the ocular<sup>3</sup> dialect needs no dictionary

but is understood all the world over. When the eyes say one thing and the tongue another, a practised man relies on the language of the first. If the man is off his centre, the eyes show it. You can read in the eyes of your companion whether your argument hits him, though his tongue will not confess it. There is a look by which a man shows when he is going to say a good thing, and a look when he has said it. Vain and forgotten are all the fine offers and offices of hospitality, if there is no welcome in the eye. Cold and empty are all the fine phrases of condolence, if there is no warm sympathy in the eye. How many furtive inclinations are avowed by the eye, though dissembled by the lips!

There are eyes, to be sure, that give no admission into the man, but that very fact reveals the leading features of his character. Some eyes speak more distinctly than others, but nearly all speak a language that can be universally understood. The alleged power to charm down insanity in man or ferocity in beasts is a power<sup>4</sup> behind the eye. It must be a victory achieved in the will before it can be signified in the eye. 'Tis very certain that each man carries in his eye the exact indication of his rank in the immense scale of men, and we are always learning to read it.

RALPH WALDO EMERSON.

<sup>1</sup> **Satellites of Jupiter.** — Jupiter, one of the planets, is attended by four *satellites*, or moons.

<sup>2</sup> **Michael Angelo.** — A great painter and architect. Born in Tuscany, 1474.

Chief architect of St. Peter's at Rome.

<sup>3</sup> **Ocular dialect.** — Language by means of the eyes [*L. oculus*, an eye.]

<sup>4</sup> **Power behind the eye.** — A power in the mind which the eye only expresses.

## A CHARADE.<sup>1</sup>

PRONOUNCED as one letter, and written with three,  
Two letters there are and two only in me;  
I'm double, I'm single, I'm black, blue, and grey,  
I am read from both ends, and the same either way.  
I am restless and wandering, steady and fixed,  
And you know not one hour what I may be the next;

I melt and I kindle, beseech and defy,  
I am watery and moist, I am fiery and dry.  
I am scornful and scowling, compassionate, meek,  
I am light, I am dark, I am strong, I am weak.  
I'm piercing and clear, I am heavy and dull,  
Expressive and languid, contracted and full.  
I'm a globe and a mirror, a window, a door,  
An index, an organ, and fifty things more.  
I belong to all animals under the sun,  
And to those which were long understood to have none.<sup>2</sup>  
By some I am said to exist in the mind,  
And am found in potatoes, and needles, and wind.  
Three jackets<sup>3</sup> I own, of glass, water, and horn,  
And I wore them all three on the day I was born.  
I am covered quite snug, have a lid and a fringe,  
Yet I move every way on invisible hinge.  
A pupil I have, a most whimsical wight,  
Who is little by day, and grows big in the night,  
Whom I cherish with care as a part of myself ;  
For in truth I depend on this delicate elf,  
Who collects all my food, and with wonderful knack,  
Throws it into a net,<sup>4</sup> which I keep at my back ;  
And though heels<sup>5</sup> over head it arrives, in a trice  
It is sent up to table<sup>6</sup> all proper and nice.  
I am spoken of sometimes as if I were glass,  
But then it is false, and the trick will not pass.  
A blow makes me run, though I have not a limb ;  
Though I neither have fins, nor a bladder, I swim.  
Like many more couples, my partner and I  
At times will look cross at each other, and shy ;  
Yet still though we differ in what we're about,  
One will do all the work when the other is out.  
I am least apt to cry, as they always remark,  
When trimmed with good lashes, or kept in the dark ;  
Should I fret and be heated, they put me to bed,  
And leave me to cool upon water and bread.  
But if hardened I grow they make use of the knife,  
Lest an obstinate humour endanger my life ;  
Or you may, though the treatment appears to be rough,  
Run a spit through my side, and with safety enough.  
Like boys who are fond of their fruit and their play,  
I am seen with my ball and my apple all day.  
My belt is a rainbow,<sup>7</sup> I reel and I dance ;  
I am said to retire, though I never advance.  
I am read by physicians, as one of their books,  
And am used by the ladies to fasten their hooks.

My language is plain, though it cannot be heard,  
 And I speak without ever pronouncing a word.  
 Some call me a diamond, some say I am jet ;  
 Others talk of my water, or how I am set.  
 I'm a borough in England, in Scotland a stream,  
 And an isle of the sea in the Irishman's dream.  
 The earth without me would no loveliness wear,  
 The sun, moon, and stars, at my wish disappear ;  
 Yet so frail is my tenure, so brittle my joy,  
 That a speck gives me pain, and a drop<sup>a</sup> can destroy.

<sup>a</sup> **A charade.**—A species of riddle, the subject of which is a word to be discovered from the description of its parts.

<sup>a</sup> **To have none.**—The mole was formerly thought to have no eyes.

<sup>a</sup> **Three jackets.**—The eye has three coatings—the outside of a horny nature, whilst within are two humours called *aqueous* and *vitreous* respectively [L. *aqua*, water ; *vitrum*, glass].

<sup>a</sup> **A net.**—That is, the *retina* or network of nerves at the back of the eye.

<sup>a</sup> **Heels over head.**—An inverted image is formed on the retina.

<sup>a</sup> **To table, etc.**—The image comes to the brain all right, so that the object is not seen upside down.

<sup>a</sup> **A rainbow.**—The coloured part of the eye is called the *iris*, which is the Greek name for a rainbow.

<sup>a</sup> **A drop.**—*e.g.*, a drop of vitriol.

## THE TOWN PUMP.

[SCENE.—*The corner of two principal streets. The Town Pump talking through his nose.*]

### ON HIS OWN IMPORTANCE.

NOON, by the north clock! Noon, by the east! High noon, too, by these hot sunbeams, which fall, scarcely aslope, upon my head, and almost make the water bubble and smoke in the trough under my nose. Truly we public characters have a tough time of it! And among all the town officers chosen at March meeting, where is he that sustains, for a single year, the burden of such manifold duties as are imposed in perpetuity upon the Town Pump? The title of "town treasurer" is rightfully mine, as guardian of the best treasure that the town has. The overseers of the poor ought to make me their chairman, since I provide bountifully for the pauper, without expense to him that pays taxes. I am at the head of the fire department, and one of the physicians to the board of health. As a keeper of the

peace, all water-drinkers will confess me equal to the constable. I perform some of the duties of the town clerk, by promulgating public notices when they are pasted on my front. To speak within bounds, I am the chief person of the municipality,<sup>1</sup> and exhibit, moreover, an admirable pattern to my brother officers, by the cool, steady, upright, downright, and impartial discharge of my business, and the constancy with which I stand to my post. Summer or winter, nobody seeks me in vain ; for all day long I am seen at the busiest corner, just above the market, stretching out my arms to rich and poor alike ; and 'at night I hold a lantern over my head, both to show where I am, and keep people out of the gutters. At this sultry noontide I am cupbearer to the parched populace, for whose benefit an iron goblet is chained to my waist. Like a dram-seller on the mall at muster-day, I cry aloud to all and sundry in my plainest accents, and at the very tiptop of my voice,—Here it is, gentlemen ! Here is the good liquor ! Walk up, walk up, gentlemen ; walk up, walk up ! Here is the superior stuff ! Here is the unadulterated ale of father Adam ; better than Cognac,<sup>2</sup> Hollands, Jamaica, strong beer, or wine of any price : here it is by the hogshead or the single glass, and not a cent to pay. Walk up, gentlemen, walk up, and help yourselves !

It were a pity if all this outcry should draw no customers. Here they come. A hot day, gentlemen ! Quaff, and away again, so as to keep yourselves in a nice cool sweat. You, my friend, will need another cupful, to wash the dust out of your throat, if it be as thick there as it is on your cowhide shoes. I see that you have trudged half a score of miles to-day, and, like a wise man, have passed by the taverns and stopped at the running brooks and well-curbs. Otherwise, betwixt heat without and a fire within, you would have been burnt to a cinder, or melted down to nothing at all in the fashion of a jelly-fish. Drink, and make room for that other fellow, who seeks my aid to quench the fiery fever of last night's potations,<sup>3</sup> which he drained from no cup of



mine. Welcome, most rubicund<sup>d</sup> sir ! You and I have been great strangers hitherto ; nor, to express the truth, will my nose be anxious for a closer intimacy till the fumes of your breath be a little less potent. Mercy on you, man ! the water absolutely hisses down your red-hot gullet, and is converted quite to steam in the miniature Tophet<sup>d</sup> which you mistake for a stomach. Fill again, and tell me, on the word of an honest toper, did you ever, in cellar, tavern, or any kind of a dram-shop, spend the price of your children's food for a swig half so delicious ? Now, for the first time these ten years, you know the flavour of cold water. Good-bye ; and, whenever you are thirsty, remember that I keep a constant supply at the old stand.

Who next ? Oh, my little friend, you are let loose from school, and come hither to scrub your blooming face, and drown the memory of certain taps of the ferule, and other schoolboy troubles, in a draught from the Town Pump. Take it, pure as the current of your young life. Take it, and may your heart and tongue never be scorched with a fiercer thirst than now ! There, my dear child, put down the cup, and yield your place to this elderly gentleman, who treads so tenderly over the stones that I expect he is afraid of breaking them. What ! he limps by without so much as thanking me, as if my hospitable offers were meant only for people who have no wine-cellars. Well, well, sir : no harm done, I hope ! Go, draw the cork, tip the decanter ; but when your great toe<sup>d</sup> shall set you a-roaring, it will be no affair of mine. If gentlemen love the pleasant titillation of the gout, it is all one to the Town Pump. This thirsty dog, with his red tongue lolling out, does not scorn my hospitality, but stands on his hind-legs, and laps eagerly out of the trough. See how lightly he capers away again ! Jowler, did your worship ever have the gout ?

ON HIS OWN HISTORY.

Are you all satisfied ? Then wipe your mouths, my

good friends ; and while my spout has a moment's leisure, I will delight the town with a few historical reminiscences. In far antiquity, beneath a darksome shadow of venerable boughs, a spring bubbled out of the leaf-strown earth, in the very spot where you now behold me on the sunny pavement. The water was as bright and clear, and deemed as precious, as liquid diamonds. The Indian Sagamores drank of it from time immemorial, till the fearful deluge of fire-water<sup>7</sup> burst upon the red men, and swept their whole race away from the cold fountains. For many years after the white man came to settle here it was the watering-place, and as it were the wash-bowl of the vicinity, whither all decent folks resorted, to purify their visages and gaze at them afterwards—at least the pretty maidens did—in the mirror which it made. On Sabbath days, whenever a babe was to be baptized, the sexton filled his basin here, and placed it on the communion table of the humble meeting-house, which partly covered the site of yonder stately brick one. Thus one generation after another was consecrated to heaven by its waters, and cast their waxing and waning shadows into its glassy bosom, and vanished from the earth, as if mortal life were but a flitting image in a fountain. Finally, the fountain vanished also. Cellars were dug on all sides, and cart-loads of gravel flung upon its source, whence oozed a turbid stream, forming a mud-puddle at the corner of two streets. In the hot months, when its refreshment was most needed, the dust flew in clouds over the forgotten birthplace of their waters, now their grave. But, in the course of time, a town pump was sunk into the source of the ancient spring ; and when the first decayed another took its place—and then another, and still another—till here stand I, gentlemen and ladies, to serve you with my own goblet. Drink and be refreshed ! The water is pure and cold as that which slaked the thirst of the red Sagamore beneath the aged boughs, though now the gem of the wilderness is treasured under these hot stones,

where no shadow falls but from the brick buildings. And be it the moral of my story that, as the wasted and long-lost fountain is now known and prized again, so shall the virtues of cold water, too little valued since your fathers' days, be recognised by all.

Your pardon, good people ; I must interrupt my stream of eloquence and spout forth a stream of water, to replenish the trough for this teamster and his two yoke of oxen, who have come from Topsfield, or somewhere along that way. No part of my business is pleasanter than the watering of cattle. Look how rapidly they lower the water-mark on the sides of the trough, till their capacious stomachs are moistened with a gallon or two apiece, and they can afford time to breathe it in with sighs of calm enjoyment. Now they roll their quiet eyes around the brim of their monstrous drinking-vessel. An ox is your true toper. But I perceive, my dear auditors, that you are impatient for the remainder of my discourse. Impute it, I beseech you, to no defect of modesty, if I insist a little longer on so fruitful a topic as my own multifarious merits. It is altogether for your good. The better you think of me, the better men and women will you find yourselves.

#### IN PRAISE OF WATER.

I shall say nothing of my all important aid on washing days ; though, on that account alone, I might call myself the household god of a hundred families. Far be it from me also to hint, my respectable friends, at the show of dirty faces which you would present without my pains to keep you clean. Nor will I remind you how often, when the midnight bells<sup>8</sup> made you tremble for your combustible town, you have fled to the Town Pump, and found me always at my post, firm amid the confusion, and ready to drain my vital current in your behalf. Neither is it worth while to lay much stress on my claims to a medical diploma,<sup>9</sup> as the physician whose simple rule of practice is preferable to all

the nauseous lore which has found men sick, or left them so, since the days of Hippocrates.<sup>10</sup> Let us take a broader view of my beneficial influence on mankind.

No ; these are trifles compared with the merits which wise men concede to me—if not in my single self, yet as the representative of a class—of being the grand reformer of the age. From my spout, and such spouts as mine, must flow the stream that shall cleanse our earth of the vast portion of its crime and anguish, which has gushed from the fiery fountains of the still. In this mighty enterprise the cow shall be my great confederate. Milk and water ! The *Town Pump* and the *Cow* ! Such is the glorious co-partnership that shall tear down the distilleries and brewhouses, uproot the vineyards, shatter the cider-presses, and finally monopolise the whole business of quenching thirst. Blessed consummation ! Then Poverty shall pass away from the land, finding no hovel sufficiently wretched for her squalid form to find shelter. Then disease, for lack of other victims, shall gnaw its own heart, and die. Then Sin, if she do not die, shall lose half her strength. Until now the frenzy of hereditary<sup>11</sup> fever has raged in the human blood, transmitted from sire to son, and rekindled in every generation by fresh draughts of liquid flame. When that inward fire shall be extinguished, the heat of passion cannot but grow cool, and war—the drunkenness of nations—perhaps will cease. At least, there will be no war of households. The husband and wife, drinking deep of peaceful joy—a calm bliss of temperate affections—shall pass hand in hand through life, and lie down, not reluctantly, at its protracted close.

NATHANIEL HAWTHORNE.

<sup>1</sup> **Municipality.**—A town or district having a local government of its own.

<sup>2</sup> **Cognac**, brandy ; **Hollands**, gin ; **Jamaica**, rum.

<sup>3</sup> **Potation.**—Excessive drinking [L. *potare*, to drink].

<sup>4</sup> **Rubicund.**—Red. The drunkard being sometimes distinguished by a very red nose.

<sup>5</sup> **Tophet.**—The valley of Himmon, on the south of Jerusalem, where the refuse of the city was burnt. The drunkard's stomach is here called, on account of its hot condition, a miniature Tophet.

<sup>6</sup> **Your great toe.**—This old gentleman is subject to the gout in his great toe—a complaint which often comes from drinking strong wine.

\* **Firewater.**—A name applied by the Red Indians to gin and other spirits first sold to them by the white traders.

\* **Midnight bells.**—The fire-alarm bells in the middle of the night.

\* **Medical diploma.**—A certificate authorizing the holder to practise as a medical man.

\* **Hippocrates.**—The most celebrated physician of ancient times. He was born about B.C. 460, and died at the age of 104.

\* **Hereditary fever.**—The feverish thirst which leads to drunkenness is thought to be hereditary—that is, to descend from father to son.

## I HAE NAEBODY NOW.

I HAE naebody now—I hae naebody now,  
To meet me upon the green,  
Wi' her light locks waving o'er her brow,  
And joy in her deep blue een;  
Wi' the saft sweet kiss, an' the happy smile,  
An' the dance of the lightsome fav,  
An' the wee-bit tale of news the while  
That had happen'd when I was away.

I hae naebody now—I hae naebody now,  
To clasp at my bosom at even;  
O'er her calm sleep to breathe the vow,  
An' pray for a blessing from Heaven;  
An' the wild embrace, an' the gleesome face,  
In the morning that met mine eye:  
Where are they now? Where are they now?  
In the cauld, cauld grave they lie.

There's naebody kens—there's naebody kens,  
An' O may they never prove,  
That sharpest degree of agony  
For the child of their earthly love!  
To see a flower in its vernal hour  
By slow degrees decay;  
Then softly aneath in the arms of death  
Breathe its sweet soul away.

O dinna break, my poor auld heart,  
Nor at thy loss repine;  
For the unseen hand that threw the dart  
Was sent from her Father and thine.  
Yes, I maun mourn, an' I *will* mourn,  
Even till my latest day;  
But though my darling can never return  
I shall follow her soon away.

JAMES HOGG.

**THE WAY OF THE WORLD.**

WHEN we reflect on the manner in which mankind generally confer their favours, we shall find that they who seem to want them least are the very persons who most liberally receive them. Every man who has seen the world, and has had his ups and downs in life, as the expression is, must have frequently experienced the truth of this doctrine, and must know that to have much, or to seem to have it, is the only way to have more. Thus, when a man has no occasion to borrow, he finds numbers willing to lend to him.

Jack Spindle and I were old acquaintances ; but he's gone. Jack was bred in a counting-house, and his father dying just as he was out of his time, left him a handsome fortune, and many friends to advise with. The restraint in which he had been brought up had thrown a gloom upon his temper, which some regarded as habitual prudence ; and from such considerations he had every day repeated offers of friendship. Those who had money were ready to offer him their assistance that way ; and they who had daughters, frequently in the warmth of affection advised him to marry. Jack, however, was in good circumstances ; he wanted neither money, friends, nor a wife, and therefore modestly declined their proposals.

Some errors in the management of his affairs, and several losses in trade, soon brought Jack to a different way of thinking ; and he at last thought it the best way to let his friends know that their offers were at length acceptable. His first address was, therefore, to a scrivener, who had formerly made him frequent offers of money and friendship, at a time when, perhaps, he knew those offers would be refused.

Jack, therefore, thought he might use his old friend without any ceremony ; and, as a man confident of not being refused, requested the loan of a hundred guineas for a few

days, as he just then had an occasion for money. "And pray, Mr. Spindle," replied the scrivener, "do you want all this money?" "Want it, sir!" says the other: "if I did not want it, I should not have asked it." "I am sorry for that," says the friend; "for those who want money when they come to borrow will want when they should come to pay. To say the truth, Mr. Spindle, money is money now-a-days. I believe it is all sunk in the bottom of the sea, for my part; and he that has got a little is a fool if he does not keep what he has got."

Not quite disconcerted by this refusal, our adventurer was resolved to apply to another, whom he knew to be the very best friend he had in the world. The gentleman whom he now addressed received his proposal with all the affability that could be expected from generous friendship. "Let me see,—you want a hundred guineas; and pray, dear Jack, would not fifty answer?" "If you have but fifty to spare, sir, I must be contented." "Fifty to spare! I do not say that, for I believe I have but twenty about me." "Then I must borrow the other thirty from some other friend." "And pray," replied the friend, "would it not be the best way to borrow the whole money from that other friend, and then one note will serve for all, you know? Mr. Spindle, make no ceremony with me at any time; you know I'm your friend, when you choose a bit of dinner or so. You, Tom, see the gentleman down. You won't forget to dine with us now and then? Your very humble servant."

Every day now began to strip Jack of his former finery; his clothes flew piece by piece to the pawnbroker's; and he seemed at length equipped in the genuine mourning of antiquity. But still he thought himself secure from starving; the numberless invitations he had received to dine, even after his losses, were yet unanswered; he was, therefore, now resolved to accept of a dinner, because he wanted one; and in this manner he actually lived among his friends

a whole week without being openly affronted. The last place I saw poor Jack was at the Rev. Dr. Gosling's. He had, as he fancied, just nicked the time, for he came in as a servant was laying the cloth. He took a chair without being desired, and talked for some time without being attended to. He assured the company that nothing procured so good an appetite as a walk to White Conduit House, where he had been that morning. He looked at the table-cloth, and praised the figure of the damask, talked of a feast where he had been the day before, but that the venison was overdone. All this, however, procured the poor creature no invitation, and he was not yet sufficiently hardened to stay without being asked ; wherefore, finding the gentleman of the house insensible to all his fetches, he thought proper at last to retire, and mend his appetite by a walk in the Park.

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### CONTENTMENT.

THERE is a virtue which, like the philosopher's stone, turns all it touches into gold, and gives a lustre to all it shines upon. That virtue is sweet content ; which, if it does not bring riches, does the same thing, by banishing the desire of them. If it cannot remove the ills of life, it makes a man easy under them. It extinguishes all murmuring, repining, and ingratitude towards that Being who has allotted to each one his part to act in this world, and has bound to each one's back the burden he is to carry from stage to stage through life. It gives sweetness to our conversation, and a perpetual serenity to all our thoughts.

Among the many methods which might be made use of for the acquiring of this virtue, I shall only mention the two following : First of all, a man should always consider how much he has more than he wants ; and, secondly, how much more unfortunate he might be than he is.



First of all, a man should always consider how much more he has than he wants. I am wonderfully pleased with the reply which Aristippus made to one who condoled him upon the loss of his farm: "Why," said he, "I have three farms still, and you have but one; so that I ought rather to be afflicted for you than you for me." On the contrary, foolish men are more apt to consider what they have lost than what they possess, and to fix their eyes upon those who are richer than themselves rather than on those who are under greater difficulties. All the real pleasures and conveniences of life lie in a narrow compass. The homely proverb, "Enough is as good as a feast," applies not only to food, but to all the means of supporting and enjoying life. He alone is truly rich who has more than he wants. Let a man's estate be as large as you please, he is a poor man if he does not live within it. On the other hand, however small a man's property may be, he is a rich man if it supplies all he wants. "Content," says Socrates, "is natural wealth."

In the second place, every one ought to reflect how much more unfortunate he might be than he really is. Whatever misfortune may have befallen us, it will be easy to compare our own lot with that of others still harder to bear, or to discover some happy circumstance in our adverse fortune. I like the story of the honest Dutchman, who, upon breaking his leg by a fall from the mainmast, told the standers-by it was a great mercy that it was not his neck.

Upon the whole a contented mind is the greatest blessing a man can enjoy, for it enables him to make the most of this world's good, and the least of its evil.





